



Housing and Supports for Adults with Severe Addictions and/or Mental Illness in BC

October 31, 2007



Authors

Michelle Patterson, PhD, R.Psych.

Adjunct Professor & Scientist

Julian Somers, PhD, R.Psych.

Associate Professor

Faculty of Health Sciences

Centre for Applied Research in Mental Health and Addiction (CARMHA)

Simon Fraser University

7038-515 West Hastings St.

Vancouver, BC V6B 5K3

Karen McIntosh, MA

Senior Research Assistant

Alan Shiell, PhD

Professor and AHFMR Senior Health Scholar

Population Health Intervention Research Centre

Department of Community Health Sciences

University of Calgary

3330 Hospital Drive NW

Calgary, Alberta T2N 4N1

Charles James Frankish, PhD

Associate Professor

College for Interdisciplinary Studies

University of British Columbia

2206 East Mall, Room 425

Vancouver BC V6T 1Z3

Ministry of Health – Project Lead

Gerrit Van der Leer

Director, Mental Health and Addictions

Health Authorities Division

B.C. Ministry of Health

6-1, 1515 Blanshard St

Victoria BC V8W 3C8



Partners and Contributors

Ministry of Health – Mental Health and Addictions Branch

- Jeet Rana; Trevor Hancock, Ph.D.; Rafe Mooney

Ministry of Forests and Range – Housing Policy Branch

- Greg Steves; Amy Jordan; Virginia Holden

Ministry of Employment and Income Assistance

- Ian Ross; Bob McFarlane

Health Authorities

- Vancouver Coastal: Linda Thomas; Ron Peters
- Vancouver Island: Ken Moselle, Ph.D., Kelly Reid, Ian Musgrave, M.D.
- Fraser: Dan Kipper, Sue Melnychuk
- Interior: Todd Thexton, Dave Harry
- Northern: Shirley Massey, Tracy McLellan
- Provincial Health Services Authority: Patrick Smith, Ph.D.

Academics

- Victoria Smye, Ph.D., University of British Columbia
- Elliot Goldner, M.D., CARMHA - Simon Fraser University
- Wayne Jones, CARMHA- Simon Fraser University
- Paula Goering, Ph.D., University of Toronto
- Jill Grant, Ph.D., University of Northern British Columbia

Community Agencies

- BC Housing: Lorraine Copas, Dominic Flanagan, Tammy Bennett
- CMHA, BC Division: Catharine Hume, Teya Greenberg,
- City of Vancouver: Jill Davidson; Judy Graves,
- Coast Foundation: Darrell Burnham, Heather Edgar
- Lookout Emergency Services: Karen O'Shaunacery
- Triage Emergency Services: Greg Richmond
- Vancouver Native Health Services: Lou Demery

Table of Contents

Table of Contents	3
List of Figures	6
List of Tables	6
1. Executive Summary.....	8
2. Introduction	15
2.1. PURPOSE	15
2.2. MANDATE AND QUALIFYING STATEMENT	15
2.3. METHODOLOGY AND DEFINITIONS	15
2.3.1. <i>Defining Severe Addictions and Mental Illness (SAMI)</i>	16
2.3.2. <i>Defining Homelessness and Inadequate Housing</i>	16
2.3.3. <i>Developing Estimates of Unmet Need</i>	18
2.4. OVERLAPPING PROBLEMS: HOMELESSNESS AND SEVERE ADDICTIONS AND/OR MENTAL ILLNESS	19
2.4.1. <i>Who are the Homeless with Severe Addictions and/or Mental Illness?</i> 19	
2.4.2. <i>Factors Contributing to Homelessness</i>	20
2.4.3. <i>Where do Homeless People with SAMI Live?</i>	21
2.4.4. <i>What are Their Needs?</i>	22
2.4.5. <i>Impact of Homelessness on the Community</i>	25
2.5. PROGRESS TO DATE: GOVERNMENT POLICY INITIATIVES	26
2.5.1. <i>Premier's Task Force on Homelessness, September 2004</i>	26
2.5.2. <i>Provincial Housing Strategy, 2005</i>	26
2.5.3. <i>BC Housing Management Commission</i>	27
2.5.4. <i>Homeless Action Plan – City of Vancouver, April 26, 2005</i>	28
2.5.5. <i>Health Authority Housing Plans</i>	28
2.5.6. <i>Canadian Mental Health Association (CMHA) – BC Division, Provincial Outreach, 2006/2007</i>	28
2.5.7. <i>Ministry of Forests and Range, Housing Policy Branch</i>	29
2.5.8. <i>Federal Government Initiatives</i>	29
3. Estimating Current Capacity and Unmet Need	31
3.1. ESTIMATING THE PREVALENCE OF SAMI IN THE HOMELESS POPULATION.....	31
3.1.1. <i>Step 1: Estimating the prevalence of SAMI in the BC adult population.</i> 31	
3.1.2. <i>Step 2: Estimating the proportion of adults with SAMI who are inadequately housed</i>	32
3.1.3. <i>Step 3: Estimating the proportion of adults with SAMI who are inadequately housed and inadequately supported</i>	33
3.2. ESTIMATING THE PROPORTION OF SAMI ADULTS WHO ARE ABSOLUTELY HOMELESS	34
3.2.1. <i>Literature Review</i>	34
3.2.2. <i>Homeless Counts in BC Communities</i>	36

3.2.3. <i>Canadian Mental Health Association – BC Division: Key Informant Interviews</i>	37
3.2.4. <i>Step 4: Estimating the Proportion of Adults in BC with SAMI who are Absolutely Homeless</i>	41
3.3. CURRENT CAPACITY OF HOUSING/SUPPORT SERVICES FOR PEOPLE WITH SAMI IN BC	42
3.4. STEP 5: WHAT IS THE GAP BETWEEN CURRENT CAPACITY AND UNMET NEED?	43
3.4.1. <i>How do our estimates compare to previously established estimates?..</i>	44
3.5. CHALLENGES TO HOUSING AND SUPPORT	45
3.5.1. <i>Systemic Challenges</i>	45
3.5.2. <i>Community and Organizational Challenges</i>	45
3.5.3. <i>Individual Challenges or Limitations</i>	46
3.5.4. <i>Understanding the Practices that Create Barriers</i>	46
4. Review of Housing and Support Models	48
4.1. INTRODUCTION	48
4.2. METHODS	49
4.3. THE HOUSING CONTINUUM.....	49
4.4. THE EMERGENCE OF SUPPORTIVE HOUSING	50
4.5. NEW APPROACHES TO PERMANENT SUPPORTED HOUSING (PSH)	51
4.6. SUPPORTED HOUSING CONFIGURATIONS	51
4.7. EVIDENCE FOR CONGREGATE (CONTINUUM) VS. NON-CONGREGATE HOUSING/SUPPORT MODELS	53
4.8. EVIDENCE REGARDING HOUSING AND SUPPORT FOR PERSONS WITH SAMI	53
4.8.1. <i>Evidence of Impact of Housing and Support on Resident Stability and Hospitalization</i>	53
4.8.2. <i>Limited Evidence of Superiority for any Particular Supported Housing Model</i>	54
4.8.3. <i>Preliminary Evidence for Costs of Supported Housing</i>	55
4.8.4. <i>Evidence on the Principles of Supported Housing</i>	55
4.8.5. <i>Implications of the Evidence Base</i>	56
4.8.6. <i>Unique Implementation Issues</i>	57
4.9. CASE MANAGEMENT SERVICES: LITERATURE REVIEW	58
4.9.1. <i>Models of case management</i>	58
4.9.2. <i>Assertive Community Treatment</i>	59
4.9.3. <i>Integrated Treatment for Mental Health and Addictions</i>	61
4.10. RESIDENTIAL CARE FACILITIES AND FAMILY CARE HOMES	61
4.11. NEW APPROACHES TO ADDRESSING SAMI	62
4.11.1. <i>Low Barrier Housing</i>	63
4.11.2. <i>Aboriginal Supported Housing Units</i>	64
4.12. EXAMPLES OF HOUSING AND SUPPORT FOR PEOPLE WITH SAMI FROM OTHER JURISDICTIONS	64
4.12.1. <i>Europe</i>	64
4.12.2. <i>United States</i>	65
4.13. OTHER APPROACHES TO HOUSING AND SUPPORT FOR PEOPLE WITH SAMI	67

4.13.1. <i>Specialized Outreach Teams for People with Complex Mental Disorders and Challenging Behaviours</i>	68
4.13.2. <i>Multi-Agency Special Case Teams</i>	68
4.13.3. <i>Multi-Purpose Service Centres</i>	68
4.13.4. <i>Processes to Alter Access to Mainstream Settings</i>	68
4.13.5. <i>Preventing Homelessness After Institutional Discharge</i>	68
4.14. SUMMARY AND CONCLUSIONS.....	69
5. Public Sector Costs of a Housing and Support Intervention for Adults with SAMI in British Columbia.....	74
5.1. KEY MESSAGES.....	74
5.2. INTRODUCTION.....	74
5.3. BACKGROUND.....	75
5.4. METHODS.....	77
5.5. INTERVENTION.....	78
5.6. DATA.....	80
5.7. RESULTS.....	90
5.8. DISCUSSION.....	95
5.9. CAVEATS AND LIMITATIONS.....	97
6. Recommendations and Future Directions.....	99
6.1. WHY THE CURRENT APPROACH DOESN'T WORK.....	99
6.2. RECOMMENDATIONS.....	99
References.....	105
Appendix A: Description of the Continuum of Permanent Housing Programs for People with SAMI in BC.....	117
Appendix B: Mental Health and Addictions Continuum of Community Services – Definitions.....	121
Appendix C: CMHA-BC Division List of Key Informants by Health Authority.....	129
Appendix D: Description of Low Barrier Housing.....	133
Appendix E: Examples of UK Housing Approaches.....	138
Appendix F: 10-Year Plans for Homelessness in Selected US Cities.....	141
APPENDIX G: SENSITIVITY ANALYSIS.....	146

List of Figures

Figure 1: Adults with SAMI who are inadequately housed, inadequately housed and inadequately supported, or absolutely homeless.....	10
Figure 2: Process of establishing and refining estimates of unmet housing/support need	10
Figure3: Overview of the portfolio of housing supported through BC Housing.	19

List of Tables

Table A: Annual costs and cost avoidance associated with the status quo and providing recommended housing and support to the absolutely homeless	11
Table 1: Prevalence Estimates of SAMI in BC by Major Axis I Disorder.....	31
Table 2: . Lower and Upper Estimates of the Proportion of the SAMI Population that is inadequately housed.....	33
Table 3: Lower and Upper Estimates of the Proportion of Adults with SAMI who are both Inadequately Housed and Inadequately Supported, by Health Authority.....	34
Table 4: Summary of Prevalence of SAMI among the Absolutely Homeless Population.....	36
Table 5: Summary of results of homeless counts in BC communities.....	37
Table 6: Summary of Key Informant Interviews conducted by CMHA-BC Division	39
Table 7: Estimated number of adults with SAMI who are absolutely homeless.	42
Table 8: Mental Health (MH) and Addictions (A) Community Beds by Health Authority	43
Table 9: Estimated Gap between Current Capacity and Unmet Need for the BC SAMI Population aged 19-80 years, by Health Authority.....	44
Table 10: Housing and Support Options Currently Available to Individuals with SAMI in BC.....	50
Table 11: Recommended Housing and Support Options for Individuals with SAMI.....	70
Table 12: Essential Service System Components	71
Table 13: Intervention Population.....	79
Table 14: Housing Configuration – Current (pre) and ‘Ideal’ (post)	79
Table 15a/b: Housing Units - Distribution in Percentage and Units.....	80
Table 16a/b/c: Capital Costs to Meet Post Intervention Supported Housing Need	82
Table 17a/b/c: Housing Places Used by Target Cohort - Pre & Post Intervention.....	84
Table 18: Cost of Public Housing in British Columbia, Per Person	86
Table 19: Use of Other Public Services, Pre and Post Intervention.....	87
Table 20: Cost of Public Service Use in British Columbia, Per Person	89
Table 21: Housing and Residential Services Cost (Avoidance) Per Year for the Absolutely Homeless.....	90

Table 22: Other Services Cost (Avoidance) Per Year for the Absolutely Homeless	91
Table 23: Housing Intervention Cost (Avoidance) Per Year (excluding capital costs) for the Absolutely Homeless	91
Table 24: Housing Intervention Cost (Avoidance) Per Year (including capital costs) for the Absolutely Homeless	91
Table 25: Housing and Residential Services Cost (Avoidance) Per Year for the At-Risk.....	92
Table 26: Other Services Cost (Avoidance) Per Year for the At-Risk	93
Table 27: Housing Intervention Cost (Avoidance) Per Year (excluding capital costs) for the At Risk	93
Table 28: Housing Intervention Cost (Avoidance) Per Year (including capital costs) for the At Risk	93
Table 29: Housing and Residential Services Cost (Avoidance) Per Year for the Combined Population.....	94
Table 30: Other Services Cost (Avoidance) Per Year for the Combined Population	94
Table 31: Housing Intervention Cost (Avoidance) Per Year (excluding capital costs) for the Combined Population.....	95
Table 32: Housing Intervention Cost (Avoidance) Per Year (including capital costs) for the Combined Population	95
Summary Table: Costs/offsets associated with providing recommended housing and support	96

1. Executive Summary

Homelessness has reached unprecedented levels across urban, semi-urban, and rural communities in British Columbia. From the Greater Vancouver Region to Northern communities, from the Gulf Islands to the cities and towns of the Interior, every region of the Province is experiencing the strain of inadequate housing and concomitant social, health, and economic issues. The focus of this report is the disproportionately high number of absolutely homeless and inadequately housed adults who have severe addictions and/or mental illness (SAMI). A great deal of public concern has been expressed about the overlap between mental illness, substance use, and homelessness. Approximately how many adults with SAMI are in need of adequate housing and support in BC? Moreover, what are the evidence-based solutions to homelessness among this population, and what are the costs of implementing these solutions?

According to housing and support providers across BC, affordable housing is vanishing, evictions are on the rise, and waiting lists for social and supported housing continue to grow. As a consequence, homelessness and SAMI are placing greater pressure on the social service, health care and criminal justice systems. In contrast to the cost of implementing solutions, what is the cost of the status quo?

In August 2006, the BC Ministry of Health – Mental Health and Addictions Branch asked the Centre for Applied Research in Mental Health and Addiction (CARMHA) at Simon Fraser University to provide up-to-date information with regard to the scope of the problem, recommended solutions and associated costs. CARMHA drew upon diverse sources of information including published literature, academic experts, decision-makers and key informants throughout BC in order to generate answers to some of the most pressing questions regarding the needs of this population. We hope that this report will provide the basis for constructive action to deal with the overlapping problems of homelessness and severe addictions and/or mental illness.

The scope of this report includes the *absolutely homeless* - people who live on the streets, cycle through shelters and rooming houses, as well as those *at imminent risk* of becoming homeless – people who live in substandard or illegal accommodation and lack support for their mental illness and/or addiction. Our definition of SAMI includes all of the major Axis I disorders as defined by the Diagnostic and Statistical Manual (DSM-IV-TR), focussing on those individuals whose functional capacity is seriously compromised. This definition includes severe forms of substance use, eating, and anxiety disorders as well as mood and psychotic disorders. Finally, this report focuses on adults between the ages of 19 and 80 years, recognizing that homeless youth (with or without SAMI) have a number of unique needs which are an appropriate focus of concern in their own right.

1.1. Key findings

1.1.1. How many adults with SAMI are in need of adequate housing and support?

The first step was to estimate the number of adults in BC who have a severe addiction and/or mental illness. Several epidemiological surveys have reported one-year prevalence rates for the major mental disorders as well as the subsets of individuals who are severely impacted by their symptoms. When these rates are applied to the BC population, approximately 130,000 adults meet the criteria for SAMI.

Next, we estimated the subsets of the SAMI population that are inadequately housed, are both inadequately housed *and* inadequately supported (at-risk of homelessness), and are actually homeless. No single authoritative source of information is available to derive these estimates. However, a number of recent reports offered valuable insights into

various levels of housing need among the SAMI population in BC, including reports by the Canadian Mental Health Association (CMHA - BC Division), the Senate of Canada (Kirby Commission), the BC Provincial Government (various Ministries), and scholarly publications. These sources of information were confirmed and augmented by local stakeholders and key informants. The resulting estimates are reported below, along with a range reflecting the upper and lower bounds of each estimate.

It is estimated that approximately **39,000** (26,000 - 51,500) adults in BC with SAMI are **inadequately housed**. It was assumed that the subset of individuals who are at-risk of homelessness are *both* inadequately housed *and* inadequately supported – a number estimated to be **26,500** (17,500 - 35,500). A smaller subset of the SAMI population is **absolutely homeless**, estimated to be **11,750** (8,000 - 15,500). In BC, there are currently 7,741 housing units with housing-related support available to adults with SAMI. When this housing stock is subtracted from the estimated need, **an estimated 18,759 adults with SAMI are at imminent risk of homelessness**. Note that many other supported and social housing units currently exist province-wide, but are designed for seniors, low-income families and other vulnerable sub-groups. Also many housing units provide rental subsidies but do not offer adequate support (i.e., case management services, community living support, and on-going follow-up). These units, although available to people with SAMI, were not counted as part of the current supported housing stock.

The visibility of homelessness in some BC cities may generate the impression that the need for housing among the SAMI population is predominantly an urban issue. However, as part of this project, the CMHA surveyed front-line workers in various housing and mental health service organizations across 28 small BC communities and confirmed that homelessness and SAMI are highly prevalent in rural settings. Of the entire homeless population, the CMHA's rural key informants estimated that SAMI affects between 60% to 100% of the absolutely homeless population and about 30% of the at-risk population.

Some might assume that the predominant forms of SAMI among the homeless involve psychotic illnesses such as schizophrenia. However, the published literature and key informants in BC confirm that addiction is the most prevalent mental health problem in both the street homeless and at-risk populations, followed by concurrent disorders and, less frequently, mental illness alone.

1.1.2. Literature Review

A comprehensive review of the academic and grey literature (over 600 publications) confirmed what is known anecdotally: the interaction between homelessness and SAMI is complex and significant. The prevalence of SAMI varies among different sub-groups within the homeless population, with higher rates among women and Aboriginal peoples. It is estimated that 41% of all Aboriginal peoples in BC are at-risk of homelessness and 23% are absolutely homeless. Co-occurring substance use and mental illness are extremely common among the homeless. For example, between 50% to 70% of homeless people with severe mental illness also have substance use disorders. About 11% of homeless people have a diagnosis of schizophrenia. As expected, these rates tend to be higher among the absolutely homeless than among those at-risk for homelessness. The literature review highlights some of the prevalent needs relating to SAMI and housing, but also emphasizes that there are diverse subgroups (e.g., based on ethnicity or diagnosis) that require specific strategies and services.

In response to these needs, the available literature confirms that housing with supports *in any form* is an effective intervention for individuals with SAMI. Accommodation combined with appropriate supports is linked to increase housing stability, decreased homelessness, and a decrease in the frequency and duration of hospitalization. There is well-established evidence that more well-defined and integrated housing support services, such as *Assertive Community Treatment (ACT)*, are more effective than traditional case management in reducing homelessness and symptom severity among people with SAMI. Also, there is preliminary evidence that a *Housing First* approach

(permanent independent housing with non-contingent support services) may be effective with hard-to-house individuals (e.g., the chronically homeless and those with severe addictions and concurrent disorders).

Low barrier housing (most often transitional with a strong harm reduction philosophy) with high- and low-level on-site support has recently emerged as a housing and support option for people with SAMI. The low barrier model recognizes that the SAMI population faces a wide range of challenges related to housing including locating accommodations, securing a damage deposit, signing a lease, or simply producing identification.

People with SAMI need and prefer a range of housing and support options to choose from. Most people with SAMI desire to live independently in the community, not in congregate housing. While a range of options is recommended, the focus should be on permanent and independent supported housing. The historical emphasis on institutional settings such as licensed residential care has been shifting towards more supported and low-barrier models. In most cases, individuals with SAMI are able to function in the community provided they receive adequate support. Congregate care models are only appropriate if they are chosen by the tenant or if the tenant is so low-functioning that they cannot live in an independent setting.

1.1.3. What is the cost of providing housing and support to adults with SAMI?

We next examined the cost of change. Economic analyses were conducted in relation to two subgroups of people with SAMI: (1) the absolutely homeless, and (2) those 'at imminent risk' of homelessness. An inter-professional team of housing experts, service providers, and health economists identified the recommended configuration of housing and support units needed by adults with SAMI in BC. The recommended blend of housing and supports was based on evidence on what is effective for this population (e.g., more supported housing, less residential care, choice along the housing continuum). The under-supply of existing units resulted in projected capital costs which were estimated based on provincial documents and data provided by housing providers. Capital costs associated with the combined 'at imminent risk' and absolutely homeless group may be inflated given that some of these people will require housing upgrades rather than construction of new units. Nevertheless, in terms of annual costs, projected capital costs are overshadowed by the operational costs of providing services.

As of December 31, 2006, there were 7,741 beds/units (with adequate support) available to adults with SAMI across the province. It is assumed that these units are occupied by adults with SAMI who would otherwise be at-risk for homelessness (ie., inadequately housed and inadequately supported). The costs associated with these units (see Table A below) constitute a part of the status quo. However, a variety of non-housing services and costs must also be considered including employment and income assistance, emergency and other health service costs, and corrections system costs. The costing model was separated into capital costs, costs of providing housing and related support services, and the costs of other services (health care, corrections custody, and social services). To determine the net effect on each of these services, we obtained per unit cost information (available across a wide range of services) and estimates of the change in service use before and after the implementation of a housing intervention (available only for inpatient/outpatient health costs and provincial correctional institution costs; see Table 19 for a detailed list). We acknowledge that public sector costs will be underestimated given that some health costs (e.g., ambulance, laboratory, pharmaceuticals), criminal justice costs (e.g., federal corrections, community corrections, policing), and other social service costs (e.g., income assistance, child welfare, etc.) have not been included in our estimates.

The main findings are as follows:

- If we focus on the absolutely homeless, non-housing service costs amount to about \$644.3 million per year across the province. In other words, the average street homeless adult with SAMI in BC costs the public

system in excess of \$55,000 per year. Provision of adequate housing and supports is estimated to reduce this cost to \$37,000 per year. This results in an overall 'cost avoidance' of about \$211 million per year.

- The 'cost avoidance' in health care and provincial corrections institution costs are more than sufficient to offset the capital costs and the costs of providing housing supports to those who are absolutely homeless.
- A capital investment of \$784 million (\$31 million in annualized capital expenditure) is needed to provide adequate housing to the 11,750 adults with SAMI who are absolutely homeless. An additional \$148 million per year is needed to provide housing-related support services.
- In total, the annualized capital and housing support costs for providing adequate housing and support to the absolutely homeless with SAMI is approximately \$179 million (annualized capital cost of \$31 million plus annual housing and support cost of \$148 million). This cost is fully avoided by the \$211 million 'cost avoidance' in health care, corrections custody, and emergency shelter costs, resulting in a net cost avoidance of about \$33 million per year to the province.

The cost model did not take into account indirect costs that might be associated with the homeless SAMI population such as costs to business and tourism, conference and convention bookings, etc. The inclusion of these and other cost drivers would further enhance the case for change.

Table A: Annual costs and 'cost avoidance' associated with the status quo and providing recommended housing and support to the absolutely homeless (n = 11,750).

Annual Costs (Cost Avoidance)	Status Quo	Recommended Investment	Net Impact
Capital Costs (total investment)	\$0	\$784 million	\$784 million
Capital Costs (annual equivalent)	\$0	\$30.5 million	\$30.5 million
Housing & Support Costs	\$50.6 million	\$198.7 million	\$148.1 million
Health & Provincial Correctional Institution Costs	\$644.3 million	\$433.0 million	(\$211.3 million)
Overall Cost (Avoidance)	\$694.9 million	\$662.1 million	(\$32.8 million)

1.1.4. Caveats

A major caveat arises from our use of *average costs* to estimate the 'cost avoidance' associated with reductions in service use. The cost 'avoidance' needs to be interpreted with caution. Health care expenditure does not necessarily fall by the amounts we report here, but resources valued at their average cost are made available for the benefit of others. It is in this context that we refer to 'cost avoidance'.

The cost model is based on evidence from a variety of sources, none of which identically matches the current context of the intervention being evaluated for British Columbia. We used relevant unit cost data from Canada but used US information on service use before and after implementing new housing models. Our estimates of cost avoidance will be biased to the extent that service use differs between the US and Canada or to the extent that the effectiveness of providing adequate supported housing differs. Our model is further limited by its static nature. We do not account for the dynamic effects of the housing intervention and the rolling changes that would occur subsequently on service use. Rather, we present two 'snapshots'

of service use amongst the target population, pre and post intervention. It should also be noted that our model is restricted to public sector costs only.

We were limited in our ability to incorporate some supported housing models and their effectiveness in our model. As stated previously, the base-line model does not include ACT although this service is recommended for some homeless people with SAMI. Given the nature of the costing model and the limited effectiveness data for the impact of ACT on other types of service usage, we cannot reliably predict this service's effect on costs. However, the literature suggests that while ACT costs more than regular case management, it may also create further cost avoidance in other service usage.

Finally, the cost model is constrained by the overall limited availability of effectiveness data. We have had to make some assumptions to cover gaps in the evidence, especially relating to changes in the use of social services and the corrections system. Despite these caveats and limitations, our results fit well with other *ex post* analyses of similar interventions (Pomeroy, 2006; Culhane *et al.*, 2002).

1.2. Major Challenges

In the course of completing this report, key informants and community stakeholders cited positive examples of investment and innovation intended to better address the housing needs of BC's SAMI population. However, they also described a number of challenges that must be acknowledged and addressed.

- **Integrated planning and communication.** Homelessness and SAMI straddle all levels of government and many departments within governments. There is a need for better integration between municipalities and inter-Ministry service providers (e.g., housing, health, corrections, employment) in order to ensure continuity of care and avoid reduplication of services.
- **Income assistance.** People with SAMI are among the most impoverished in Canada. Of all groups with disabilities, people with mental illness have one of the lowest employment rates. Although they are eligible for benefits, many homeless people with SAMI are not enrolled and face significant enrollment barriers.
- **Supply of low-cost rental housing.** There has been a significant drop in low-rent housing supply across the province. The number of rooming houses has decreased dramatically over the past ten years due to gentrification. At the same time, rents have increased and vacancy rates have decreased to such an extent that low-income people can no longer afford housing.
- **Crisis orientation.** In the absence of other supports, homeless people with SAMI tend to rely on services that are designed to respond to emergencies and resolve crises. Despite general agreement that inadequate attention is devoted to preventing homelessness among the SAMI population, little funding has been directed to addressing underlying causes. Thus, managers and service providers understandably focus on stop-gap solutions to immediate crises.
- **Insufficient community programs and supports for people with SAMI.** The over-representation of people with SAMI among the homeless population is directly linked to the lack of community supports, including Assertive Community Treatment. There are even fewer supports for people with *both* mental health and addictions problems, who are at a disproportionate risk for homelessness.

1.3. Key Actions

The key actions arising from this report all relate to the need for strategic investments in evidence-based housing and support services to meet the needs of BC's SAMI population. The following specific actions are highlighted for consideration.

- **Supported housing.** Additional housing units with on- or off-site support, designed for homeless people with SAMI, must be built in each Health Authority. A variety of supported housing options and an adequate number of units should be made available including the Supported Independent Living Program, congregate and block apartments, satellite apartments, and 'housing first' models.
- **Housing First**, which provides permanent, independent (i.e., non-congregate) housing to people without time limits or requirements for engagement in treatment, has been shown to be effective for the SAMI population and should be developed throughout BC. Treatment and support services are provided by Assertive Community Treatment teams.
- **Multidisciplinary treatment teams.** Fully-integrated multidisciplinary teams are required in order to reach the "hardest to house" and provide better access to services and treatment. Assertive Community Teams (ACT) and similar models of intensive case management with fidelity to low case-loads have been shown to reduce inpatient hospitalization, decrease substance use and symptoms of mental illness, and increase community tenure for people who are homeless.
- **Low Barrier Housing** (transitional, congregate housing with no requirements) is another housing-plus-support option for homeless people with SAMI. Our informants indicated that approximately 15% of homeless people with severe substance use are unable to maintain independent housing and would benefit from a low barrier housing model. Approximately one-third of tenants require high-level, on-site support, while the remainder of tenants can manage with low-level support services (on- and off-site).
- **Harm reduction** facilities that accept the use of drugs and alcohol on-site should be readily available to address the needs of homeless people with severe addictions. The harm reduction philosophy is integral to Housing First and low barrier housing models.
- **Integrated mental health and addiction services.** Given the extensive overlap between mental illness and substance use disorders, efforts to end homelessness in this population must address mental health and addiction in an integrated fashion. The development of a strategy that addresses the cultural and philosophical differences within the mental health and addiction sectors and allocates sufficient resources to bridge these differences is needed to facilitate systems integration. This strategy must address initiatives to reduce drug use, build treatment and housing capacity, and increase access to services that promote recovery from SAMI.
- **New affordable housing.** A more intensive and coordinated provincial development strategy is needed to increase the supply of affordable rental housing. A layered approach is recommended because no single mechanism alone can reduce rents to affordable levels. This strategy is recommended to include initiatives to subsidize land costs, waive fees and charges such as GST and PST, modify property taxes, provide rent supplements, and help with financing costs, mortgage insurance, and capital grants.
- **Preserve existing affordable housing.** This strategy should place equal emphasis on the preservation of existing affordable housing. It should follow the principle of "no net loss" by placing controls on demolition and conversion of affordable units. It should address legalizing second suites and rooming houses in selected areas and under certain conditions.

- **Homeless services information system.** Develop a comprehensive data base on social, health, and housing services, including a central shelter bed registry. A computerized client/service tracking system, accessible by all agencies that serve the homeless and SAMI populations, would link agencies, promote knowledge exchange, simplify referrals, enable evaluation of the combined effectiveness of services, and facilitate client access to services.
- **Regional and provincial distribution of services.** Housing and support services need to be made available to homeless people with SAMI in their own communities, not just in urban and semi-urban centres.
- **Fast-track to Income Assistance for homeless people.** Changes to eligibility criteria and the complexity of the application process for both basic income supports and disability benefits have made it difficult for people with SAMI to successfully apply. The Ministry of Employment and Income Assistance and BC Housing are currently piloting projects that simplify and expedite the application process for homeless people with SAMI. Continued efforts and funding are needed in this area to formalize these protocols and ensure provincial consistency and accessibility.
- **Discharge policies and practices.** Hospitals and correctional institutions should establish and implement discharge protocols for people with “no fixed address.” No one should be discharged from an institution directly to the street or a shelter without prior arrangement and follow-up.
- **Provincial Mental Health and Addictions strategy.** A provincial strategy is needed to address the housing and support service needs of homeless people with SAMI, including clear benchmarks, timelines, and targets designed to guide the implementation, evaluation, and ongoing provision of services.

It is recommended that the population of adults with SAMI who are absolutely homeless be used as a *starting point* for developing new units (between 8,000 – 15,500; mid-point = 11,750). We acknowledge that this is likely a conservative estimate as many other people with SAMI who are at-risk for homelessness also are in need of supported housing.

1.4. Conclusion

Excluding capital costs, the cost of providing supported housing and other health services to this population of adults with SAMI is lower than the cost incurred through use of emergency departments, the corrections system, and emergency shelters when they are homeless. Without adequate housing and support, people with SAMI who are homeless often cycle through the streets, prisons and jails, and high-cost health care settings such as emergency rooms and psychiatric inpatient units. This is ineffective and costly in both human and financial terms.

Furthermore, research has shown that people with SAMI who are homeless, once believed to be unreachable and difficult-to-serve, can be engaged into services, can accept and benefit from mental health and substance use services, and can remain in stable housing with appropriate supports. It is time to implement these evidence-based solutions for British Columbians in need.

2. Introduction

2.1. Purpose

- To provide estimates of British Columbia's current supported housing capacity as well as the unmet need for adults with severe addictions and/or mental illness (SAMI) who require adequate, suitable, and affordable housing and support services;
- To review current and innovative models of housing and related support for this population both from within BC and from other jurisdictions;
- To estimate the costs associated with providing recommended models of housing and support to SAMI individuals in need of housing as well as the costs associated with maintaining the status quo; and
- To summarize these findings and provide recommendations with regards to future directions.

2.2. Mandate and Qualifying Statement

The focus of this report is on the B.C. adult population (ages 19-80 years) with severe addictions and/or mental illness (SAMI) that is also in need of adequate housing and related support services. We recognize that there are other clinical sub-populations that are at-risk of homelessness including individuals with less severe addictions and/or mental illness, personality disorders, and cognitive disorders such as acquired brain injury and mental retardation. Many of these individuals have a primary Axis I diagnosis and are thus included in our process of determining estimates (see our definition of SAMI below for more details about inclusion/exclusion criteria). A recent report (CARMHA, 2006) focusing on adults in BC with developmental disabilities and complex behavioural problems provided estimates of unmet needs; these findings are discussed in the current report.

We also recognize that there are many marginalized populations, such as Aboriginal peoples, people incarcerated in correctional facilities, youth, women, immigrants and refugees, and seniors, all of whom are in need of specialized services. However, we do not focus on specific sub-groups outside of the homeless SAMI population in this report. Further, we have not included individuals with SAMI who are currently living in tertiary care settings. Instead, this report focuses on those individuals with SAMI who can live in the community with varying degrees of support. Wherever possible, we have included relevant findings from BC and Canada. It should be noted, however, that much of the research in the area of SAMI and homelessness has been conducted in the United States.

2.3. Methodology and Definitions

Representatives from all five Health Authorities, BC Housing, and relevant Government Ministries (Health, Forests and Range-Housing Policy Branch) were contacted in order to obtain current information on housing/support capacity for people with SAMI. Academics with expertise in homelessness and mental illness as well as community agency members who work with the homeless SAMI population were consulted throughout the project.

2.3.1. Defining Severe Addictions and Mental Illness (SAMI)

Various definitions of SAMI exist in the published literature. Most attempts to identify the severely mentally ill have involved establishing criteria on a number of dimensions; however, the relevant dimensions are widely debated (Slade et al., 1997). Many researchers have used a categorical, disorder-based approach to define severe mental illness including, for example, individuals diagnosed with psychotic disorders (e.g., Schizophrenia) and Bipolar Disorder. Schinnar et al. (1990) compared 17 definitions of severe and persistent mental illness used in the USA between 1972 and 1987 and identified broad inconsistencies. In an examination of 222 adult inpatients, those who met the criteria for having a severe mental illness ranged between 4% and 88%, depending on the definition used.

Given that many individuals whose illnesses do not fall into the categories of psychotic and/or severe mood disorders but who are nonetheless chronically impaired by mental illness and/or substance abuse, **we defined SAMI across all of the major mental disorders (Axis I, see DSM-IV-TR) based on estimates of functional capacity** (i.e., an individual's ability to actively engage in personal, social, and occupational areas of daily life; see also Kessler et al., 2005; Ruggeri et al., 1999). Severity estimates have been provided by epidemiologists (e.g., Kessler et al., 2005; Andrews, 2006) for the majority of Axis I disorders based on level of functional impairment and chronicity¹.

It should be noted that our definition of SAMI is somewhat more inclusive than what has been widely used in the past (e.g., NIMH, 1987; Slade et al., 1997). Our definition includes all mood, anxiety and substance use disorders, which are more prevalent in the general population than bipolar and psychotic disorders. While it may be argued that most mood and anxiety disorders are not as severe as psychotic and bipolar disorders, many individuals with Major Depressive Disorder, Post-Traumatic Stress Disorder, Obsessive Compulsive Disorder, Panic Disorder, and Substance Use Disorders are severely impaired. We believe that a definition of SAMI that does not include these disorders underestimates the population that is functionally impaired due to mental illness and in need of housing-related support services.

Our definition of SAMI does not include personality disorders, which often result in long-standing disability. Inter-rater reliability for personality disorders (Axis II) is much lower than for Axis I disorders (Zimmerman, 1994), and the population prevalence and severity prevalence information is not as reliable. However, the majority of these individuals also have an Axis I diagnosis and should therefore be captured in our estimates. Similarly, we did not include cognitive disorders such as mental retardation, acquired brain injury, fetal alcohol syndrome, dementia, etc.. However, 75% of these individuals have a primary diagnosis of mental illness (CARMHA, 2006) and should thus be included in our estimates. We recognize that these disorders result in significant functional impairment, however, the scope of the current project was limited to the major Axis I disorders.

2.3.2. Defining Homelessness and Inadequate Housing

Homelessness has been defined in many different ways by various stakeholders, some of whom include only the street homeless and others who include various subgroups who are at-risk of losing their shelter in the immediate future (Daly, 1996). As illustrated in Figure 1, our conceptualization of homelessness includes both the absolutely ("street") homeless as well as those at imminent risk of homelessness. To maintain

¹ Kessler et al. (2005)'s analyses of the National Comorbidity Survey (based on a structured diagnostic interview with a representative US sample) revealed that 5.7% of the general population met criteria for SAMI (12-month suicide attempt with serious lethal intent; work disability or substantial limitation due to mental or substance disorder resulting in 30 or more days out of role in the year; positive screen results for non-affective psychosis; bipolar I or II disorder; or substance dependence with serious role impairment).

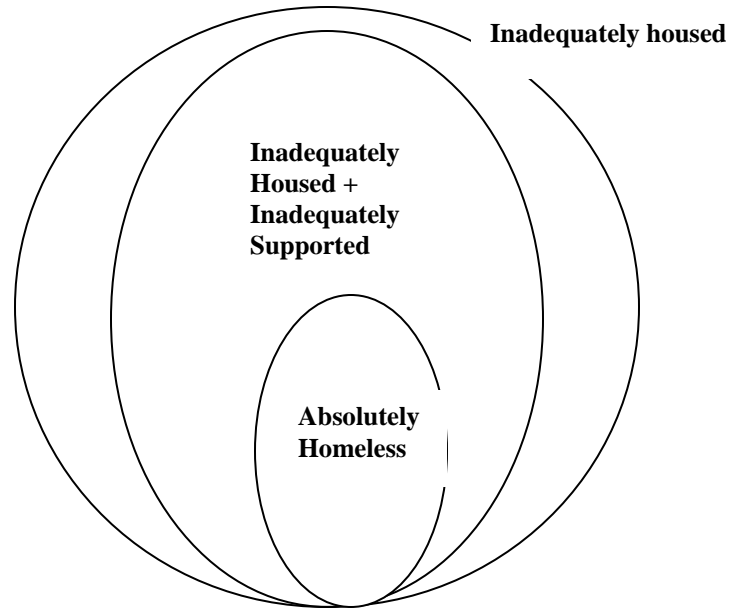
clarity throughout the report the following three subgroups of the homeless/at-risk population have been defined:

The paths in and out of homelessness usually involve some form of **inadequate housing**. We defined inadequate housing based on the national standard for “core housing need,” set by the Canadian Housing and Mortgage Corporation (CMHC, April 2004) as well as guidance from the academic literature. Canadian households are considered to be in core housing need if their housing is in major disrepair, overcrowded (more than one person per room), and/or costs more than 50% of gross household income. We recognize that while some of these individuals are at-risk of losing their housing, the criteria for core housing need are quite liberal and not all of these individuals are at-risk of homelessness.

While the most visible homeless individuals are those living on the streets, many more individuals are precariously housed in rooming houses, transitional housing, substandard rental suites, shacks and cabins without running water, and other forms of substandard or unaffordable housing. We assume that those individuals who are both **inadequately housed and inadequately supported** are particularly at-risk for homelessness. The at-risk population is not captured in homeless counts and is often excluded from research studies. Inclusion of this population is important because if vacancy rates are low and no social housing is available it is difficult to permanently escape homelessness (Hulchanski, 2000). When the current supply of supported housing stock is subtracted from the at-risk population, we are left with those who are **‘at imminent risk’ of homelessness**.

Absolute homelessness refers to those without any physical shelter. This group includes people who are “living rough” (i.e., outside in parks, alleys, doorways, parked vehicles, parking garages, etc.), as well as those in emergency shelters. The relevance of the term “street homeless” has been questioned since living on the street is, for most people, only one of many subsistence patterns. Other venues of temporary residence may include shelters, hospitals, staying with friends, rooming houses, etc. Research has found that the actual proportion of street-dwelling people who cannot or will not ever use shelters is very small (Kuhn & Culhane, 1998). Refusal to use shelters is often linked to restrictive admission policies, fears for personal safety, and adverse conditions in shelters. Homelessness in smaller and suburban communities often takes the form of “couch surfing” (especially by women, youth, and young adults), partly due to the lack of local services and facilities for homeless people as well as personal preferences (Kraus et al., 2001).

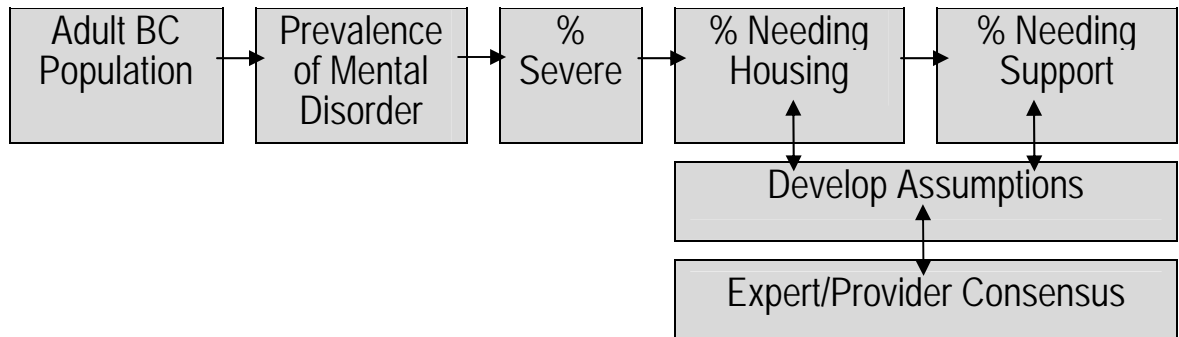
Figure 1 . Adults with SAMI who are inadequately housed, inadequately housed and inadequately supported, or absolutely homeless.



2.3.3. Developing Estimates of Unmet Need

Estimates were developed based on guidance from the academic and grey literature as well as expert consensus (see Figure 1). Some consensus could be drawn from the epidemiological literature with regard to population prevalence rates and severity rates for each of the major Axis I disorders. However, there is a dearth of empirical data on the need for adequate housing and support among the SAMI population. For these estimates, we reviewed the academic and grey literature for guidance and then drew on the experience of government, academic, and community experts in housing and support for people with SAMI. The methodology was presented to the expert group and consensus was established via discussion and debate. The process of establishing estimates is further described in Section 3 of this report.

Figure 2: Process of establishing and refining estimates of unmet housing/support need



2.4. Overlapping Problems: Homelessness and Severe Addictions and/or Mental Illness

2.4.1. Who are the Homeless with Severe Addictions and/or Mental Illness?

Now considered a classic, two anthropologists published an account of homelessness among severely mentally ill men and women in New York city twenty-five years ago (Baxter & Hopper, 1981). They wrote:

The sights of shabbily dressed persons seeking to retrieve food from trash containers, huddling in doorways or on steam escapes to keep warm in the winter, or attempting to sleep in public places are common and disturbing... The problem of homelessness has reached such extraordinary proportions in recent years that it can no longer be dealt with in piecemeal fashion. A comprehensive, well-integrated policy is desperately needed, one that will insist upon the joint responsibilities of city, state, and voluntary agencies and recognize that coordinated action by mental health and social service departments is essential. For mentally disabled individuals on the street, the distinction between clinical and survival needs has long lost any meaning (pp. iii).

Over two decades later, images of homeless individuals with severe addictions and/or mental illness have become familiar parts of BC's urban and semi-urban landscapes. However, homelessness and SAMI are not just urban problems; many people in rural communities across BC are afflicted with SAMI and are in need of adequate housing and support.

Historically, homelessness has been viewed as a condition that afflicts particular disaffected segments of the population whose deviant behaviours, lifestyle preferences, and sub-cultural adaptations produce a nearly permanent state of disaffiliation (Bahr, 1973). Since the 1980s, however, the homeless population has become increasingly diverse. With rising inflation, rents, and unemployment, many more people entered the state of being "precariously housed" (Kuhn & Culhane, 1998). At the same time, a decline in social assistance, reduced eligibility for benefits, as well as cutbacks in government housing programs and the supply of single-room occupancy (SRO) hotels, resulted in fewer resources available to people who were shifting between various states of unstable housing. The increasing visibility of people living on the street and the growing demand for shelters has been attributed to the reduced ability of families and other social institutions to buffer people from destitution (Hopper & Hamberg, 1986).

Researchers have also found that many people who experience homelessness have had temporary episodes of homelessness and have not necessarily acculturated to a "homeless lifestyle" (Kuhn & Culhane, 1998). This changing profile of homelessness has led several researchers to investigate typologies of homeless people through the technique of cluster analysis. For example, Kuhn and Culhane examined administrative data from New York City and Philadelphia shelters in the early 1990s. They found three distinct clusters of shelter users: (1) transitional clients (80%), who use shelters for a short time, presumably as a time to recover from a temporary emergency; (2) episodic clients (10%), who move in and out of shelters frequently, possibly alternating shelter stays with bouts of street homelessness, hospitalization, and incarceration; and (3) chronic clients (10%), who rarely leave the shelter over long periods. Although the transitional group was largest, the impact of chronic clients on the overall shelter load in the homeless

shelter system was strongest. As expected, SAMI appeared to be most prevalent among the episodic and, in particular, the chronic shelter clients.

2.4.1.1 Aboriginal Peoples²

Despite the recognition that Aboriginal peoples are disproportionately represented among the homeless population in Canada, research in this area is scarce. It has perhaps been assumed that Aboriginal issues could be addressed by mainstream policies and research, however, the numbers of Aboriginal peoples who are at-risk or absolutely homeless appear to be growing. In both urban and rural areas, there are significant disparities between the proportion of Aboriginal people in the general versus homeless populations. The United Native Nations (2001) estimated that *41% of BC's Aboriginal people were at risk of homelessness and 23% were absolutely homeless.*

2.4.2. Factors Contributing to Homelessness

Many factors contribute to the problem of homelessness among persons with SAMI. Deinstitutionalization, unstable housing, inadequate discharge planning and community follow-up, lack of affordable housing, and changing economic factors have all been advanced as contributors to the current homelessness crisis (Folsom & Jeste, 2002; Forchuk et al., 2006).

There is also research to suggest that SAMI itself may be a contributing risk factor in becoming homeless (Caton, 1995; Folsom & Jeste, 2002). Due to the cyclical and long-term nature of their illnesses, persons with SAMI often have great difficulty gaining or sustaining employment. These individuals often have limited incomes and live in precarious economic circumstances. Without a regular income, many depend on a patchwork of provincial and federal benefit programs for disabled persons. However, entitlement programs, designed to provide assistance to meet basic needs, are often inadequate. Moreover, SAMI individuals often experience difficulty gaining access to and establishing eligibility for these programs. Once eligibility is established, loss or interruption of benefits may also become a precursor to episodes of homelessness.

Although the popular press often equates homelessness with deinstitutionalization policies, there is considerable debate about the extent to which homelessness is a consequence of the disabling nature of SAMI or is itself a precipitant of psychiatric disability. For example, Grunberg and Eagle (1990) described a process called "shelterization" which is similar to early accounts of learned helplessness in psychiatric hospitals. Shelterization is characterized by decreased interpersonal responsiveness, neglect of personal hygiene, increased passivity, and increased dependence on others. Indeed, the harsh reality of living on the street (lack of food, exposure, sleep deprivation, poor hygiene, victimization, etc.) can trigger and/or exacerbate mental health problems.

Draine et al. (2002) argue that poverty has a profound impact on homelessness, employment, and criminal justice involvement, independent of the presence of a mental illness. They argue that mental illness should not be ignored as an important factor in the experience of poverty, however, focusing on aggressive treatment of mental illness will not bring persons with SAMI out of poverty. Continued impoverishment keeps SAMI individuals at high risk for experiencing a variety of social problems. Quigley and Raphael

² In keeping with the Royal Commission on Aboriginal Peoples (1996), we used the term Aboriginal peoples to refer generally to the Indigenous inhabitants of Canada, including First Nations, Métis and Inuit peoples without regard to their separate origins and identities (see Browne, 2003; Smye, 2004). The Commission stresses that the term Aboriginal peoples "refers to organic political and cultural entities that stem historically from the original peoples of North America, rather than collections of individuals united by so called 'racial' characteristics (see section 35(2) of the Constitution Act, 1982)" (p. xii). Specifically, the term "First Nation" replaces the term "Indian" and "Inuit" replaces the term "Eskimo."

(2001) reported that tighter housing markets and disparities in income distribution are positively associated with higher levels of homelessness. They also found that cities and towns with milder winters experience higher levels of homelessness; they found little evidence that homelessness varies with local rates of unemployment or the incidence of those receiving disability pensions.

With regard to Aboriginal homelessness, many of the factors discussed above apply; however, an exploration of Aboriginal homelessness must consider the historical and colonial legacy that has destroyed families, communities, and an Aboriginal way of life (SPARC-BC, 2006). Aboriginal peoples are over-represented in low-income groups; for example, 41% of registered Indian families are at or below the low-income cut-off compared to 16.5% of the general Canadian population (United Native Nations, 2001). Furthermore, with a much younger population than the general population, unemployment is higher and education levels are lower compared to the general Canadian population. Many advocacy groups argue that the roots of Aboriginal homelessness lie in the multi-generational experiences of residential schools, wardship through the child welfare system, and economic and social marginalization from mainstream Canadian society (SPARC-BC, 2006).

In conclusion, it is likely that both homelessness and mental illness have reciprocal effects, leading to poor overall health and decreased ability to cope with adverse circumstances. Homelessness and SAMI are complex social and health problems which require multidimensional strategies to meet the immediate needs of this population. Establishing policies that reflect a long-term vision is also critical to preventing and reducing homelessness.

2.4.3. Where do Homeless People with SAMI Live?

Homelessness for most people consists of a brief stay in a shelter or transitional home, where such services exist, while they recover from an economic and personal crisis (City of Vancouver, 2005). For those who are unable to recover stable shelter, living on the street is typically only one of many subsistence patterns including shelters, hospitals, staying with friends, rooming houses, etc. that occur over time.

Rooming Houses. Rooming houses are one of the most inexpensive types of housing in most urban centres, and provide shelter for many very low-income, single people. Single Room Occupancy hotels play a key role in the housing continuum because they represent the last line of housing before homelessness for many low-income individuals. Over the last 10 years, many rooming houses across BC have been destroyed and replaced with more expensive units. For example, although an SRO retention bylaw was passed in Vancouver in 2003, it has many loopholes and the \$5,000 fine for converting without city permission is too low to deter conversions in a hot real estate market.

Research conducted by the CMHC (2006) found that the typical rooming house client in Canada is generally male, late 30s to late 40s, single or divorced, Canadian-born, of British or First Nations ancestry, and living far below the poverty line. In many cases, rooming house clients are unable to work due to poor physical and/or mental health and addiction problems. A small but consistent proportion of women live in rooming houses, and their profile is very similar to that of men. However, research has shown that rooming houses are often problematic for women, particularly for those with multiple health and social needs (CMHC, 2006). Both landlords and tenants have identified a need for more support, either on-site or through linkages with community agencies, for tenants with mental health and/or addictions issues. Moreover, landlords reported that people with mental health and addictions comprise an increasing proportion of rooming house residents.

Emergency Shelters. Across BC, emergency shelter providers are finding it increasingly difficult to keep up with demand. Although emergency shelters are able to respond to many people seeking safe shelter, an increasing number of individuals are turned away. For example, Lookout Emergency Aid Society in Vancouver recorded an increase of 160% in the number of turn-aways from their downtown shelter in 2002/03 compared to 2000/01. There were almost 5,000 turn-aways from the two Lookout shelters in 2002/03. While the majority of people who use the shelter system move on to more stable housing, approximately 20% are chronic shelter users, caught in a perpetual cycle of homelessness (City of Vancouver, 2005).

The results from investigating the short-term experience of first-time homeless persons are not encouraging. In a six-month follow-up study, Sosin et al. (1990) detected a pattern of intermittent homelessness: of 65 recent arrivals in homeless shelters, 80% exited from homelessness but 60% of that group became homeless a second time. In a study of male first-time users of homeless shelters, Fournier et al. (1995) found that 25% either remained homeless after a year or returned to homelessness after exiting temporarily. Finally, in a study of first-time users of homeless shelters in Toronto, Goering et al. (2002) found that first-time homeless persons had multiple indicators of serious problems (i.e., SAMI) and, in many ways, resembled their more chronically homeless counterparts. These findings suggest that many people who are homeless for the first time are functionally impaired and become homeless again if they do not receive housing and related support services.

Forensic Settings. Within the rapidly growing jail and prison population, persons suffering from SAMI are over-represented. The current prevalence of severe mental illness (based on a narrow definition that does not include substance use disorders) in forensic institutions ranges between 6% and 15%, in contrast to a prevalence rate of approximately 2.8% in the general adult population (Lamb & Weinberger, 1998; Lamberti et al., 2001). Teplin (1984) reported that a person with a mental illness has a 64% greater chance of being arrested for committing the same offense as a person who does not have a mental illness.

Substandard Housing. As described above, inadequate housing has been defined by CMHC (2004) as a dwelling that is in major disrepair, overcrowded, and unaffordable (over 50% of household income). Particularly in smaller communities where street homelessness is less tolerated, many homeless people with SAMI live in substandard housing, including shacks with no running water or heat and run down or dilapidated apartment units. While people become at-risk for homelessness for many reasons (e.g., family violence, physical and mental health problems, dramatic changes in income), the CMHC definition is primarily based on economic factors and may thus represent a conservative estimate of the at-risk population.

Market Low-Income Housing. Many homeless people with SAMI do access (or attempt to access) affordable market housing. Retaining tenancy is often extremely challenging for people as behaviours related to SAMI are often not tolerated by landlords and property managers and rent arrears are often quickly accumulated.

2.4.4. What are Their Needs?

Homeless people with SAMI are a diverse population with a diverse range of needs. Many homeless SAMI individuals have multiple and complex physical and mental health needs including physical disability, unmanaged chronic and infectious diseases, poverty, social isolation, trauma, and many other factors that make exiting homelessness difficult. Research has found that, compared to homeless persons without SAMI, those with SAMI have generally been homeless for longer periods of time, have less contact with family and

friends, experience more barriers to employment, are in poorer physical health, and have more contact with the criminal justice system (Mosher-Ashley et al., 2000).

2.4.4.1 Housing

Adequate housing is the cornerstone of care for homeless persons, particularly for those with multiple impairments such as SAMI. Homeless people with SAMI are more likely to return to the street, emergency rooms, and inpatient wards if they are not provided with adequate housing and support services (Carling, 1993). For those with alcohol and drug problems, including those dually diagnosed, maintaining sobriety may be impossible without adequate housing and support (Tsemberis et al., 2006).

According to the CMHC (2001), 16% of all BC households (and 29.6% of Aboriginal households) are in core housing need. The average shelter cost for those in core housing need was \$799 per month for owners and \$662 per month for renters; the average shelter cost-to-income ratio was 49%. A Government of Canada (Bunting, Filion, & Walks, 2002) investigation of households at-risk for homelessness within 11 metropolitan regions across the country found that 15.8% of all inner-city households are at risk by virtue of paying over 50% of income for rent. Vancouver, the only BC city in the study, was found to have a mixed pattern of risk, with concentrations of inadequate housing in both the inner-city and inner-suburbs. Among people with SAMI, the situation is considerably worse. According to the Kirby Commission (Government of Canada, 2006), *27% of individuals with severe mental illness (not including addictions) are in need of adequate, suitable, and affordable housing.*

Between 1980 and 2000, the number of affordable housing units created by the Government of Canada dropped from 24,000 to 940 (Canadian Mental Health Association, April 2005). In addition, there has been a sharp decline in private-market SRO accommodation across BC. In Vancouver, for example, there are now just over 6,000 SROs, compared to 13,300 25 years ago. Existing buildings will decline at an even steeper rate due to gentrification and the demolition of increasingly dilapidated SRO stock. Moreover, in many communities, adequate and affordable housing is beyond the means of people who rely on income support. Even with the recent increases to income assistance rates in BC, people on disability benefits or social assistance receive \$375 per month for shelter (the support portion is \$235/mo for regular assistance and \$531/mo for persons with disabilities); however, average market rents in many of BC's urban centers are well over \$600 per month. Even a poor quality SRO hotel room costs, on average, \$380 per month. Producing new affordable rental housing and preserving existing low-cost rental housing are frequently cited as key factors in preventing and reducing homelessness (Golden et al., 1999).

The challenges facing people in rural communities, including First Nations living on reserve, are complex. The remote location of many communities limits access to construction materials and skilled labour. With regard to First Nations, the Indian Act stipulates that reserve properties belong to the Crown, making it difficult for Aboriginal peoples to obtain financing for construction and reducing their incentive to make major repairs. Wentz (2000) reported that 55% of on-reserve housing across Canada is in need of major repairs or replacement. Affordable and adequate housing is a vital need across the province.

2.4.4.2 Housing-related Support Services

Housing supports are services that help people obtain and retain housing. Housing is an important part of the solution, but simply providing housing is not sufficient. Maintaining stable housing depends on adequate support services which address some of the underlying causes of homelessness. Taking a population health approach, effective service design should address key determinants of health including adequate income, education and employment, social support, as well as physical and mental health care. Support services

should vary depending on the needs of the individual and address health considerations, life skills, education and employment, and supports to increase independence wherever possible. Vocational rehabilitation is an essential program component to achieve independence and community integration.

It is widely assumed that the needs for support among people with SAMI are prevalent, various, changeable, and to some extent predictable (Wiersma, 2006). Wiersma noted that the perspective of the beholder is important because discrepancies between the client and the professional are substantial with respect to number as well as type of needs. Examining two needs assessment tools commonly used with adults with severe mental illness, Wiersma reported that approximately 25% to 50% of adults with severe mental illness have unmet needs, even in community settings with strong links to primary care.

With the lack of adequate housing, economic opportunities, and formal support programs in rural areas, it is not surprising that many homeless people move to larger urban centres in search of better prospects. People who leave their own communities are not linked into the organized system in urban/semi-urban centres; therefore, outreach workers are needed to help people access the support services they need to find work and housing (SPARC-BC, 2006).

2.4.4.3 Health Care

Homeless people are at high risk for infectious disease (e.g., HIV/AIDS), premature death, acute illness, suicide, and multiple physical problems related to living on the street (Golden et al., 1999). The proportion of homeless people reported to be in fair or poor health is significantly higher than that reported by the general population. For example, in Vancouver, 36% of SRO residents reported their health as fair or poor compared to 10% of Canadians in the general population (Butt, 1993). It has been estimated in the United States that being homeless can reduce life expectancy by 20 years and up to 40% of homeless individuals are reported to have chronic disorders such as heart disease, emphysema, diabetes, and high blood pressure (Wright et al., 1998). City of Toronto data show that young homeless men in Toronto are eight times more likely to die prematurely than men of the same age in the general population (Kushner, 1998). Tuberculosis is reported to be 25 to 100 times higher than in the general urban population (Daly, 1996). Homeless people frequently use hospital emergency rooms as their point of contact with the medical system. Treatment of illness is often delayed and health conditions often become chronic, thus increasing the costs of medical treatment.

2.4.4.4 Mental Health and Addictions Treatment

With regard to mental health and addictions treatment, the homeless SAMI population is often described as noncompliant or treatment resistant. Research has demonstrated that the reasons for low service engagement among homeless SAMI individuals are complex (Mosher-Ashley et al., 2000). Homeless SAMI persons who are not in treatment may not recognize their mental health needs and may give higher priority to other needs such as procuring drugs or food and shelter on a daily basis. They may also have had negative experiences with treatment services in the past and therefore may be unwilling to commit themselves without an initial and consistent demonstration of faith on the part of service providers.

On the other hand, the homeless SAMI population uses disproportionately more emergency and crisis services. In a large study conducted in San Diego County, Folsom et al. (2005) reported that homeless patients were ten times more likely to use crisis services and four times more likely to require inpatient hospitalization or access to emergency psychiatric units than their housed counterparts. Similarly, Kessel et al. (2006) found that a sample of homeless supported housing applicants exhibited high rates of service utilization (particularly emergency room and substance use services). A time-series analysis of 9 years of

homelessness in Toronto (Golden et al., 1999) revealed that, of the 170,000 people who were identified as homeless, 17% were chronically homeless (i.e., in the hostel system for one year or more), yet this 17% used almost half (46%) of the resources. Moreover, high-intensity service users tended to have co-morbid mental illness, substance abuse, physical health problems, and had been homeless for more than one year. A large body of research has demonstrated the persistent association of homelessness with increased morbidity, mortality, and victimization (e.g., Barrow et al., 1999; Kushel et al., 2003).

Concurrent Disorders. Among the homeless population, the co-existence of mental illness and addictions appears to be the norm, not the exception. Osher and Dixon (1997) suggested that concurrent disorders are the major clinical factor associated with prolonged and repeated homelessness among people with SAMI. Living with both severe mental illness and addiction exposes an individual to many risks including communicable diseases, suicide, victimization, incarceration, and homelessness (Drake et al., 1999). Triage Emergency Services in Vancouver has also reported that persons with concurrent disorders pose different kinds of challenges than those with mental illness alone (CMHC, 2004). It is more difficult for these individuals to obtain services as very few programs are designed to handle their specialized needs. The complexity of the issues associated with concurrent disorders requires more intensive service provision, and a more skilled and knowledgeable work force. In sum, the existing housing, support service, and treatment systems do not meet the needs of this population.

Trauma and Victimization. It is notable that rates of trauma are significantly higher among the homeless population compared to the general population (Kessler et al., 1994). Over two-thirds of homeless women in Portland, Oregon reported a lifetime experience of physical abuse (Bachrach, 1987). Similarly, in two New England cities, 89% of homeless women had experienced physical or sexual abuse in their lifetime (Goodman, 1991). A history of trauma amongst homeless men, although less well documented, is also high. In St. Louis, 21% of homeless men reported a lifetime episode of assault (North & Smith, 1992). In Sydney, Australia, all women and over 90% of men interviewed at homeless refuges reported at least one event of trauma in their life (Buhrich, Hodder, & Teesson, 2000). Serious physical assault was experienced by 58%, and 55% witnessed someone being badly injured or killed. Half of the women and 10% of men reported being raped.

In summary, the needs of individuals with SAMI who are inadequately housed are multiple and complex; these needs vary over time and across individuals. Support services are critical in the areas of physical and mental health, addictions, daily living skills, vocational training, and education. Without adequate levels of support housing itself will, in many cases, not be sustainable.

2.4.5. Impact of Homelessness on the Community

Homelessness is widely recognized as a serious issue that places enormous strain on communities as well as individuals across BC. In urban and semi-urban centres, homelessness is widely visible and is affecting many business areas (see *Globe & Mail*, Dec. 6, 2006). In Vancouver and Victoria, convention business and tourism have experienced losses; with the homeless population projected to triple by 2010, many officials are concerned about what face Vancouver will show to the world during the Olympic Games. The Downtown Vancouver Business Improvement Association estimates that Vancouver hotels have lost convention contracts worth \$500,000 due to increased homelessness and visible poverty. Vancouver Civic Theatres, the City of Vancouver, and downtown business associations have spent extra money increasing private security to guard against panhandling and people sleeping in stairwells and alleys. The Hotel Vancouver has spent \$60,000 to upgrade hotel security systems and increase outdoor lighting. Bathrooms available to the public have been closed after dark due to homeless people using them as a place to sleep or do drugs. In October

2006, representatives of the Vancouver Board of Trade, Retail BC, the Council of Tourism Associations of BC, and other organizations representing more than 80,000 members sent a letter to Prime Minister Stephen Harper, Premier Gordon Campbell, and Vancouver Mayor Sam Sullivan, asking them to work together on the problem of homelessness.

Unfortunately, gaps in the literature pertaining to mental health, addictions, housing and support are considerable. Even with the consistent media coverage of this issue and frequent public calls for action over the past 15 years, there seems to be a significant lack of research capturing the extent of this issue. Without this information it is difficult to develop necessary policy and recommendations to assist in adequately housing and supporting this population. Before addressing these gaps, we will briefly review homelessness initiatives within BC and, where applicable to BC, at the Federal level.

2.5. Progress to Date: Government Policy Initiatives

2.5.1. Premier's Task Force on Homelessness, September 2004

The Premier announced the formation of the Task Force on Homelessness, Mental Illness, and Addiction at the Union of B.C. Municipalities' (UBCM) annual convention in September 2004. The mandate of the Task Force is to develop innovative strategies to help people with addictions and mental illness move from temporary shelters into long-term, stable housing where their support needs can be better met. The Task Force convenes provincial and local governments to develop new resources to address issues related to homelessness. Task Force members include the Premier; Ministers responsible for Employment and Income Assistance, Health, and Housing; and Mayors from the cities of Vancouver, Victoria, Kelowna, Nanaimo, Prince George, Fort St. John, Terrace, New Westminster, and Surrey.

Under Phase II of the Canada/B.C. Affordable Housing Agreement, matching federal and provincial funding allowed the Task Force to announce 533 new supported housing and shelter units. All of these units combine housing with appropriate social and medical supports to help vulnerable individuals break the cycle of homelessness. In October 2006, the Province of British Columbia announced *Housing Matters BC*, a comprehensive housing strategy helping those in greatest need access safe, affordable housing. As part of the strategy, an Expressions of Interest call was issued and on February 23, 2007 the Province allocated 758 new supportive housing units under the Provincial Homelessness Initiative. This means the Province is committed to creating a total of 1,291 units under this program. The Task Force also increased funding to the Emergency Shelter Program by 40%, resulting in an increase of year-round shelter beds from 711 to 868 and cold weather beds from 197 to 391. The Task Force has also broadened its original mandate to include the perspectives of smaller communities and regions experiencing homelessness.

2.5.2. Provincial Housing Strategy, 2005

The Government of B.C. has developed a strategic plan and "goals for a golden decade" which include "safe and stable housing for all British Columbians." To address the challenges of BC's current housing context, the Provincial Housing Strategy recommends investment at strategic points along the housing continuum – a range of housing options from emergency shelters to home ownership. These investments are designed to match the level of assistance to the degree of housing need, optimize existing resources while minimizing new costs, and promote self-sufficiency rather than create further reliance on government assistance. The focus of this Strategy is on individuals who are in need of housing and support, not just low-income individuals. In addition, the Strategy emphasizes the importance of partnerships to leverage provincial resources to maximize the numbers of households who can be provided with assistance. While the Provincial

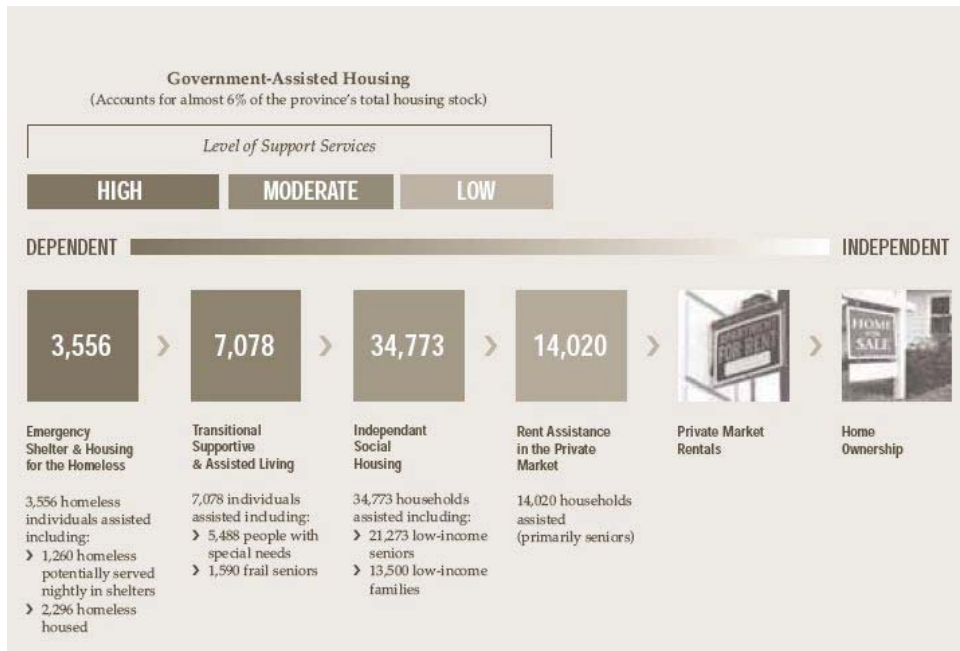
Housing Strategy will see government assistance of various types provided along the continuum, the most attention will be paid to the 17% of residents who are in “core housing need.” Of note, the province recognizes the disproportionate and significant needs of Aboriginal households, and is working with Aboriginal organizations to address these needs.

2.5.3. BC Housing Management Commission

BC Housing was created in 1967 through an Order-in-Council under the Housing Act to fulfill the government’s commitment to the development, management, and administration of subsidized housing. BC Housing works with various partners, including non-profit housing providers, the private sector, other levels of government, health authorities, and community agencies to increase affordable housing options for vulnerable British Columbians (primarily seniors, low-income families, and people with mental and physical disabilities). By 2006/2007, it is estimated that BC Housing will help more than 83,900 households across BC.

In order to address gaps within the housing continuum, several initiatives are underway to create a smoother transition from emergency housing to transitional housing and to permanent housing. For example, administration of the Emergency Shelter Program was transferred from MEIA to BC Housing. This will help create an integrated system of housing and support. The Vancouver Homeless Outreach Project, established by the City of Vancouver and the Ministry of Employment and Income Assistance in October 2005, has helped more than 100 homeless people find a place to live and apply for income assistance and social and health services. As part of the project, outreach workers approach homeless people and accompany them to provincial government offices to make income and housing arrangements the same day. Additionally, administration of the federal housing portfolio has been devolved to BC Housing (about 17,600 social housing units). This will allow harmonization of various programs and reduce the administrative burden on housing providers. By 2006/07, it is anticipated that government-assisted housing will help more than 83,900 households province-wide, with the majority of this housing being targeted to those who are most vulnerable.

Figure 3: Overview of the portfolio of housing supported through BC Housing.



2.5.4. Homeless Action Plan – City of Vancouver, April 26, 2005

In response to the GVRD Homelessness Count (2005), Vancouver City Council asked staff to prepare a Homeless Action Plan. The purpose of this plan is to identify actions which the City, other levels of government, the community, and business can take to address homelessness. The plan identifies what changes are needed so that the 1,000+ street homeless have stable housing and the number of people at-risk of homelessness is reduced. Three components are identified as essential to alleviating homelessness: income, housing, and support services. The plan makes 86 recommendations which, if implemented, are expected to eliminate homelessness in ten years. These recommendations stem from three key priorities:

1. Reduce barriers to accessing welfare by the homeless
2. Develop 3,200 units of supported housing
3. Increase addiction and mental health services

2.5.5. Health Authority Housing Plans

Two Health Authorities, Fraser and Vancouver, have developed Regional Housing Plans in an effort to build a broader continuum of housing for people with SAMI.

The *Fraser Health Authority's Mental Health Housing Plan* (May 2006) recommends three major areas of development to increase capacity and expand the range of resources. To meet projected demands of 2011, the housing plan recommends the development of additional specialized residential care beds (135), supported housing units (255), and subsidized rental units (525). The plan also outlines specific recommendations to improve the quality of current programming in residential care, to ensure clients are being connected to the most appropriate resources, to provide appropriate levels of support for clients living in the community, and to move toward a housing/support program that is integrated and accessible. The plan also recognizes the need for more low barrier housing programs in the FHA.

The *Vancouver Coastal Health Authority's Regional Framework for Mental Health and Addictions Housing* (April 2006) also recommends a three-pronged approach to housing, based on the development of (1) affordable housing for individuals who can live independently; (2) affordable, supported low-barrier housing for individuals who are homeless and who are not yet ready to engage in mental health and/or addictions treatment services as a requirement to access housing; (3) affordable, supported transitional and permanent housing for individuals actively engaged in recovery-focused mental health and addictions treatment. In addition, VCH (2006) developed demand projections for mental health and addictions housing over the next 10 years. It was estimated that a total of 2,200 new units will be required to meet the estimated need (725 low and moderate barrier units; 800 mental health supported housing units; and 675 addictions supported housing units).

2.5.6. Canadian Mental Health Association (CMHA) – BC Division, Provincial Outreach, 2006/2007

The CMHA - BC Division received funding from the Ministry of Employment and Income Assistance to deliver outreach services to individuals with mental illness who are homeless in eight communities throughout BC for one year (June 2006 to June 2007). Outreach coordinators will engage street homeless individuals and connect them to Income Assistance, appropriate housing, primary care, and mental health and addiction services. Additionally, the project involves a strong evaluation and research component with both a process and outcome focus. The regions involved are: Greater Kamloops, Kelowna, New Westminster to Maple Ridge, North Vancouver, Squamish to Pemberton, Ucluelet to Parksville, Williams' Lake, and 100 Mile House.

2.5.7. Ministry of Forests and Range, Housing Policy Branch

2.5.7.1 Evaluation of Transitional Housing Sites

The Ministry of Forests and Range, Housing Policy Branch, is developing a data collection system wherein they can link Health, Employment, and Corrections indicators related to clients' involvement in transitional housing. They are piloting this data linkage with clients from one transitional housing site, and examining a number of indicators six months prior to entering transitional housing compared to six months after exiting the site. These clients typically use high levels of community health and justice programs. The provision of housing is expected to reduce their demand on these services and improve overall health and well-being.

2.5.7.2 Homelessness Forums

Local Government Forums. Eight regional forums between provincial authorities and local governments took place in June 2006. Forums were held in Castlegar, Kamloops, Smithers, Fort St. John, Abbotsford, North Vancouver, Campbell River and Colwood. The regional forums were attended by 56 local governments, and provincial representation included BC Housing, Ministry of Forests and Range, Ministry of Employment and Income Assistance, Ministry of Children and Family Development, and all Health Authorities. The consultations provided an opportunity to share best practices with communities, raise regional and local issues, and initiate a discussion of local solutions.

Community Forums. Eight web-based forums on homelessness were held during September 2006. Participants included over 90 non-profit organizations, service providers, and interested parties. Summaries of the forums will be posted on-line (<http://www.housing.gov.bc.ca>) in Spring 2007.

2.5.8. Federal Government Initiatives

2.5.8.1 Canadian Mortgage & Housing Corporation (CMHC)

The CMHC recently extended the National Homelessness Initiative, which funds community supports such as emergency shelters and drop-in centres. It also established the Residential Rehabilitation Assistance Program, which provides assistance to low-income households, persons with disabilities, and Aboriginal people to bring their homes up to minimum health and safety standards, as well as repair shelters for victims of family violence and support home adaptations for low-income seniors.

CMHC's *Rental Market Survey* results provide key market intelligence for owners and property managers of rental buildings and all housing market participants, as it contains up-to-date and comprehensive information on rental markets across Canada.

The *2001 Census Housing Series* examines a variety of economic factors related to housing. The series includes a focus on households in core housing need (i.e. whose housing does not meet at least one of the standards of adequacy, suitability and affordability and who are unable to afford alternative housing) and which spend 50% or more of their before-tax income on shelter. This provides information on the types of households facing this problem, their housing conditions, and changes in conditions between 1996 and 2001.

The series also explores changes in household and housing conditions among Aboriginal households between the 1996 and 2001 Censuses. Comparative tables cover factors such as percentage of Aboriginals in urban versus non-urban areas, numbers of Aboriginal households in core housing need, and relationships between incomes and ownership rates as compared to non-Aboriginals.

2.5.8.2 Kirby Commission Report, May 2006

Through the *Affordable Housing Initiative*, the federal government has agreements with the provinces and territories to share the cost of constructing new affordable housing units, as well as to provide rental supplements to low-income households. *The federal government, however, does not have any housing programs designed to meet the needs of people living with mental illness.*

On May 9, 2006, the Standing Senate Committee on Social Affairs, Science and Technology released its final report relating to mental health, mental illness and addiction in Canada. This followed the earlier release of three interim reports (November 2004) that provided a broad review of policies and programs in this area. The release of the final report concluded the Committee's three year study of mental health and addiction, which includes 118 recommendations and a proposal to fund them. It is the most comprehensive study on mental health in Canada ever completed.

The recommendations aim to improve the range, quality and organization of health and support services that are required by the tens of thousands of Canadians who are living with mental illnesses and addictions. The report also makes specific recommendations towards a national approach to end the longstanding fragmentation of services, and reducing the stigma and discrimination faced by persons living with mental illness.

Canada is one of the only G-8 countries without a national strategy for mental health and mental illness.

The Kirby Commission Report calls for a national Mental Health Commission and urges the federal government to work with the provincial and territorial governments and stakeholders in the mental health community to develop and implement such a strategy. The Kirby Report also recommended the establishment of a Mental Health Transition Fund. This basket of community services approach is essential as it provides the funding for affordable housing for persons experiencing mental illness.

The Committee believes that a total of \$5.36 billion in federal funds should be made available to the provinces and territories to assist in transforming the mental health system over a ten year period. Furthermore, a transition fund would constitute an affordable, time-limited commitment on the part of the Government of Canada that would cover the cost of an enriched basket of community services, as well as new supported housing units for 57,000 persons living with mental illness.

Using figures reported by the Kirby Commission, CARMHA (internal report, July 2006) calculated the number of individuals with mental illness in BC who are inadequately housed. *It was determined that approximately 18,300 individuals with severe mental illness in BC are inadequately housed.* It should be noted that the definition of severe mental illness used by the Kirby Commission was much narrower than what we use in the current report; the Kirby definition only included individuals with psychotic and severe mood disorders (i.e., did not include individuals with substance use disorders). As noted earlier, we believe that a definition of severe mental illness that does not include substance use disorders and other major mental disorders that result in chronic functional impairment grossly underestimates the SAMI population that is in need of housing and support services.

3. Estimating Current Capacity and Unmet Need

3.1. Estimating the prevalence of SAMI in the homeless population

3.1.1. Step 1: Estimating the prevalence of SAMI in the BC adult population

Population prevalence rates and severity rates for each of the major Axis I disorders were applied to the total BC population aged 19 – 80 years to provide an estimate of the number of cases of SAMI in BC (see Table 1). We did not want to restrict our estimates to adults of working age (19-64) because many adults over the age of 64 have SAMI and are in need of adequate housing and support. We decided to cap our age range at 80 years because the frail elderly receive services from a different system of care and are not a focus of this report.

Prevalence estimates for a particular condition represent an estimate of the proportion of individuals who would be considered to have this condition in the course of a year, not just those individuals who have actually been diagnosed with the condition (see second column in Table 1). However, prevalence rates do not take into account the possibility that an individual would also meet criteria for another condition. Therefore, after determining the number of individuals with SAMI across British Columbia a co-morbidity adjustment was applied. According to the US National Comorbidity Survey, a large epidemiological study conducted under the auspices of the World Health Organization, 66.4% of subjects had no diagnosis, 16.9% had one diagnosis, 7.6% had two diagnoses, and 9.1% had three or more (with an average of 4.5). Of all individuals with a diagnosis, the average number of diagnoses per person was 2.17. $1 / 2.17 = 0.46$, which was rounded up to 0.5 to produce the co-morbidity adjustment (see the last column in Table 1 below and Table 4 in Kessler et al., 2005 for more information).

Table 1: Prevalence Estimates of SAMI in BC by Major Axis I Disorder

Disorder	12-mo Prevalence per 100 people	% Severe	# Severe Cases in BC (19-80 years) +	# Severe Cases in BC (19-80 years) after Co-Morbidity Adjustment (0.5)³
Major Depressive Disorder	4.1 ¹	35% ⁴	45,850	22,925
Dysthymia	1.5 ³	36% ⁴	17,254	8,627
Bipolar Disorder	.72 ¹	55% ³	12,653	6,326
Anxiety Disorders*	12.6 ¹	22% ³	88,568	44,284
Schizophrenia	.34 ¹	70% ⁴	7,604	3,802
Delusional Disorder	.03 ²	40% ⁵	383	192
Psychotic NOS [#]	.5 ²	40% ⁵	6,390	3,195

<i>Disorder</i>	<i>12-mo Prevalence per 100 people</i>	<i>% Severe</i>	<i># Severe Cases in BC (19-80 years) +</i>	<i># Severe Cases in BC (19-80 years) after Co-Morbidity Adjustment (0.5)³</i>
Substance Abuse/Dependence	8.4 ¹	30% ³	79,443	39,722
Eating Disorders (Anorexia Nervosa)	.9 in women ⁶ .3 in men ⁶	10% ⁴	1,448 476	724 238
TOTAL			260,069	130,035

* Anxiety disorders include Specific Phobia, Social Phobia, Panic Disorder, Generalized Anxiety Disorder, Obsessive Compulsive Disorder, Post-Traumatic Stress Disorder.

NOS – Not Otherwise Specified (DSM-IV, 1994)

+ BC population (19-80 years) in 2005 was 3,195,103 (1,585,937 men; 1,609,166 women); www.bcstats.gov.bc.ca/data/pop

¹ CARMHA Epidemiology Series: Goldner et al. (2002); Somers et al. (2006); Somers et al. (2004); Waraich et al. (2004)

² DSM-IV (APA, 1994)

³ Kessler et al. (2005)'s criteria for a serious mental illness: 12-month suicide attempt with serious lethality intent; work disability or substantial limitation due to mental or substance disorder; positive screen results for non-affective psychosis; bipolar I or II disorder; substance dependence with serious role impairment; or any disorder that resulted in 30 or more days out of role in the year.

⁴ Tolkein-II (Andrews, 2006)

⁵ Ruggeri et al. (1999)

⁶ Hudson, Hiripi, Pope & Kessler (2007)

3.1.2. Step 2: Estimating the proportion of adults with SAMI who are inadequately housed

Given the estimated prevalence of SAMI in the adult BC population (approximately 130,000 adults), we then estimated (based on the literature and expert/provider consensus opinion) the proportion of SAMI adults who are inadequately housed. The Kirby Commission (2006) reported that approximately 27% of Canadians with mental illness are inadequately housed, based on the CMHC definition of core housing need. Given that this estimate pertains to individuals with severe mental disorders based on a narrower definition than ours, (i.e., Kirby's definition includes psychotic and bipolar disorders but not anxiety, other mood, and substance use disorders)³, we would expect the population of individuals who meet our broader definition of SAMI to be in lesser need of housing and support. According to CMHC, approximately 16% of the general Canadian population is inadequately housed. Studies of clinical populations served in urban and suburban public mental health clinics over 1 – 2 year periods report rates of absolute homelessness between 15% and 40% (Herman et al, 1998; Drake, Wallach, & Hoffman, 1989; Mueser & Drake, 2000).

We are interested in the entire population of individuals with SAMI, both those who receive treatment and those who do not; thus we would expect the rate of homelessness in our population of interest to be somewhat less than that reported in clinical populations that receive treatment. Also, it should be noted that some individuals with SAMI live and/or are supported by family or are able to maintain adequate employment and income to support themselves. Therefore, in terms of the proportion of SAMI individuals

³ An unpublished report by CARMHA (July 2006) recalculated the figures from the Kirby report and determined that 27% refers to individuals with severe mental illness (1.6% of the general population) not the entire population of individuals with mental illness (i.e., including less severe mental disorders and addictions).

who are in need of adequate housing, expert/provider consensus established **20% as a lower estimate and 40% as an upper estimate** (see Table 2). Based on these figures, **the estimated number of adults with SAMI across BC who are inadequately housed ranges from approximately 26,000 to 51,500.**

Table 2: Lower and Upper Estimates of the Proportion of the SAMI Population that is Inadequately Housed

<i>Health Authority</i>	<i>Lower Estimate²</i>	<i>Upper Estimate³</i>
VCHA	6,500	13,000
VIHA	4,500	9,000
FHA	8,500	17,500
IHA	4,500	8,500
NHA	2,000	3,500
BC TOTAL	26,000	51,500

¹ Estimates have been rounded to the nearest 500.

² 20% of SAMI adults are inadequately housed (expert group consensus, December 2006)

³ 40% of SAMI adults are inadequately housed (expert group consensus, December 2006)

3.1.3. Step 3: Estimating the proportion of adults with SAMI who are inadequately housed *and* inadequately supported

It is widely reported in the academic and grey literature that the vast majority of individuals with SAMI who are inadequately housed are also in need of housing-related support services (Weirsmas, 2006; City Spaces Consulting, 2006). *Support* is difficult to define, as it varies depending on the individual, the nature of mental illness, and many other contextual factors. Moreover, the level of support will not be constant for a particular individual over time. Among those receiving mental health and addictions services from Ontario psychiatric hospitals, 72% of inpatients and 47% of outpatients were assessed as needing housing-related support (Durbin et al., 2005). Of those using community mental health services, 35% were rated as needing housing support, including 70% of those using ACT, 44% of those using case management, and 47% of those using social/recreational programs. One would expect the level of unmet need to be even greater amongst the subpopulation of SAMI individuals who are inadequately housed.

Taking these findings and their limitations into consideration, our group of housing and support providers/experts agreed that approximately **70% of adults with SAMI who are inadequately housed are also inadequately supported**. This figure was applied to the lower (20%) and upper (40%) housing estimates to derive lower and upper support estimates across each of the five Health Authorities (see Table 3). As reported in Table 3, **the estimated number of individuals with SAMI across BC who are inadequately housed *and* inadequately supported ranges from approximately 17,500 to 35,500**. This population is at-risk of homelessness, however, it is assumed that some of these individuals will reside in currently available supported housing stock. Estimates were not adjusted based on regional characteristics of each Health Authority as these characteristics vary widely and are difficult to quantify. It is generally agreed that homelessness and inadequate housing, in its many forms, is a serious concern across all five Health Authorities.

Table 3: Lower and Upper Estimates of the Proportion of Adults with SAMI who are both Inadequately Housed and Inadequately Supported, by Health Authority¹

Health Authority	Lower Estimate	Upper Estimate
VCHA	4,500	9,000
VIHA	3,000	6,000
FHA	6,000	12,000
IHA	3,000	6,000
NHA	1,000	2,500
BC TOTAL	17,500	35,500

¹ 70% of inadequately housed SAMI adults require support (expert group consensus, December 2006)

3.1.3.1 Adults with Developmental Disabilities and Complex Behavioural Problems

CARMHA (2006) estimated that approximately 66,000 adults in BC have complex mental, developmental, neurological, and substance use disorders. Within this group, approximately 5,300 adults have significant and challenging behaviours such as physical aggression, inappropriate sexual and/or fire-setting behaviour. Approximately 4,430 (84%) of these individuals require an intensive level of care and supervision not currently available in BC, and an estimated 1,380 (26%) are not eligible for any services at all. Finally, approximately 1,300 (25%) individuals are estimated to have a developmental disability or neurodevelopmental disorder as their principle diagnosis (the remaining 75% have a primary diagnosis of SAMI and are thus included in our estimates).

It should be noted that the 1,300 adults with developmental disabilities and complex behaviours who are not accounted for in our estimates will likely require intensive support services, such as the engagement of a multidisciplinary treatment team. Community Living BC (CLBC) serves approximately 28% of this population, and it is estimated that 30% of the population (approximately 300 individuals), who are not served by CLBC, is inadequately supported. A significant number of these clients are reported to be absolutely homeless. Furthermore, due to their challenging behaviours, the criminal justice system is often the first line of government service for this population. The remaining 70% of the population (about 1,000 individuals) is assumed to be supported by family or other sources. Given that our estimates have been rounded to the nearest 500 and span a range, omission of the above noted 25% (1,300 individuals) who do not have an Axis I disorder will not significantly impact our estimates.

3.2. Estimating the Proportion of SAMI Adults who are Absolutely Homeless

3.2.1. Literature Review

It is crucial to differentiate the homeless SAMI population from the general homeless population when designing and implementing intervention services. This is due, in part, to the fact that homeless SAMI persons face a greater degree of stigmatization (Lamb et al., 1992) and therefore require a greater degree of sensitivity and commitment from shelter and housing staff and a wider range of support services (Mosher-Ashley, Henrikson, & French, 2000).

A number of studies have attempted to estimate the prevalence and nature of mental illness among street homeless persons (North et al., 2004; Drake, Osher & Wallach, 1991; Golden et al., 1999). It is generally agreed upon that **approximately one-third of street homeless persons suffer from mental illness**, however, estimates range from 25% (Smith et al., 1992) to 50% (Adams et al., 1996) depending on the definitions of mental illness and homelessness used; the method used to determine psychiatric impairment (e.g., self-reported psychiatric history, psychiatric symptom rating scales, or structured psychiatric interviews); whether studies are reporting lifetime, six-month, or point-prevalence; and the way in which samples are drawn. Estimates of mental illness are higher among some sub-groups of the population. For example, the Toronto Homelessness Task Force (Golden et al., 1999) reported that 30% to 35% of the overall homeless population in Toronto suffered from mental illness, however, **the prevalence of mental illness was 75% among homeless women**.

The prevalence of SAMI among homeless persons is much higher than that found in adequately housed populations. In Los Angeles, a randomly selected sample of homeless adults was compared with a probability sample of a general population sample in the same locale (Kogel, Burnam, & Farr, 1988). Comparing six-month prevalence rates, homeless individuals were 38 times more likely to have a diagnosis of schizophrenia, five times more likely to be diagnosed with a major depressive disorder, and three times more likely to have a primary diagnosis of alcoholism. A similar study in Baltimore found that the prevalence of an Axis I diagnosis was 45% for homeless men – more than twice the rate for adequately housed men (Fischer et al., 1986). In a recent Canadian study, Goering et al. (2002) found that 64% of first-time shelter users in Toronto had a history of drug abuse and 64% had other psychiatric problems. Similarly, for those who had previously been in shelters, 71% had drug abuse histories and 69% had other psychiatric problems.

A number of other methodological problems exist that make the question of prevalence extremely difficult to answer. Bachrach (1992) addressed several factors that confound prevalence estimates of mental illness among homeless persons. Among these factors are the lack of a standard definition of homelessness and SAMI; the difficulty in establishing the presence of mental illness in persons who are extremely physically deprived; the overlap between the homeless mentally ill population and other subgroups of mentally ill persons; the diversity and heterogeneity within the homeless mentally ill population; and the mobility of homeless persons. Furthermore, many homeless SAMI individuals do not seek help in shelters or other community services, leaving them virtually hidden and/or inaccessible to researchers and thus under-represented or not represented at all.

It is a commonly held belief among the general public that people with schizophrenia make up a large proportion of the homeless population. Starting in the 1980s, a series of methodologically-sound studies have documented the prevalence of schizophrenia among homeless persons. A systematic review of the literature (Folsom & Jeste, 2002), reported that the **prevalence of schizophrenia amongst homeless people** ranged from 1% to 45%. When studies that only used representative samples and standardized diagnostic instruments were included, prevalence rates ranged from 4% to 16%, with the weighted average being **11%**. The highest rates of schizophrenia were found in the chronically homeless, which suggests that it is a significant challenge for this population to maintain stable housing.

In summary, studies that have used standardized instruments to assess current psychiatric status report prevalence rates of severe mental illness in homeless populations ranging from 25% to 40% (Fisher & Breakey, 1991; North et al., 2004; Teesson et al., 2003; Gulcur et al., 2003; Mojtabai, 2005; Munoz et al., 2005; see Table 4 for a summary). Approximately 50% to 70% of persons who are homeless with severe mental illness also abuse substances (Drake et al., 1997; Vancouver Homeless Action Plan, 2005). These

estimates are widely considered underreports because of denial, distrust, and fear of the consequences of divulging illegal behaviours (Drake et al., 1997).

Table 4: Summary of Prevalence of SAMI among the Absolutely Homeless Population

Condition	Percentage of Absolutely Homeless Population
Severe Mental Illness (not including addictions)	25-40
Concurrent Disorders (mental illness + addiction)	50-70
Alcohol Problems	30-75
Other Drug Problems	10-50

3.2.2. Homeless Counts in BC Communities

It is widely recognized that point prevalence estimates of homelessness tend to provide underestimates as they undercount people who are homeless for only brief periods of time, and people who are at-risk of being homeless. For example, Judy Villeneuve, a Surrey council member who chairs the Mayor's Task Force on Homelessness and Housing, stated "I'm certain that for every homeless person counted there were three or four that weren't counted, that are living in bushes, in cars, in garages, in tents throughout the city" (Globe and Mail, Dec. 6, 2006).

A number of homeless counts have been conducted across BC (see Table 5). Homeless counts typically involve surveys sent to emergency shelters and transition houses asking staff to enumerate all clients during one evening, as well as a day-time component where volunteers visit locations frequented by homeless people. In addition to the at-risk for homelessness population, homeless counts typically exclude people in detox facilities, recovery houses, correctional facilities, and hospitals who do not have a place to go when they leave. The majority of homeless counts have provided estimates of the proportion of the homeless population suffering from mental illness and addiction; however, it should be noted that these estimates are based on observation by untrained volunteers and self-report.

Table 5: Summary of results of homeless counts in BC communities.

City/Year	Total Homeless Count	# Street Homeless (%)	# with Mental Illness (self-report) (%)	# with Addictions (self-report) (%)
GVRD (2005)	2,174	1,130 (52%)	500 (23%)	1,065 (49%)
Upper Fraser (2005): Abbotsford, Hope, Chilliwack, Mission	359	169 (47%)	50 (14%)	183 (51%)
Victoria (2007)	743	--	297 (40%)	372 (50%) Alcohol 375 (52%) Other drugs
Nanaimo (2005)	99	(29%)	(25-32%)	(30-42%)
Kelowna (2004)	420	130 (31%)	202 (48%)	--
Kamloops (2005)	168	39 (23%)	37 (22%)	101 (60%)
Smithers (2003)	250	--	--	--

In addition, Thiessen (2006) conducted a survey of 122 homeless people as well as service providers in the Tri-Cities region (Coquitlam, Port Coquitlam, and Port Moody). He estimated that 39% of homeless people have mental illness, 86% are addicted to alcohol and/or other drugs, and 25% have concurrent disorders.

3.2.3. Canadian Mental Health Association – BC Division: Key Informant Interviews

Many researchers and mental health/housing advocates argue that homelessness and SAMI are very prevalent in small, rural communities as well as urban and suburban centres. However, homelessness among the SAMI population often has a very different profile in rural communities since these issues are often “invisible.” Cloke (2001) argues that because there are few services for homeless and SAMI individuals in small communities, there are fewer points of visible congregation. Consequently, intolerance and discrimination are significant barriers to addressing the needs of homeless individuals with SAMI in small communities. Given the issues specific to rural communities, in December 2006 and January 2007 the CMHA-BC Division conducted key informant interviews in 27 small communities throughout the province. This work was funded by the BC Ministry of Health.

3.2.3.1 Method

Working with the Dze L K’ant Friendship Centre Society in Smithers, two contracted researchers – one from CMHA BC Div and one from the Friendship Centre Society completed 92 interviews with “mainstream” and Aboriginal mental health/housing and support service organizations in small BC communities. Communities were selected based on (1) population size (7,000 – 30,000), (2) the presence of mental health/housing and support service providers, or (3) the presence of a CMHA Provincial Homeless Outreach Project staff member. Larger communities that have recently conducted homeless counts were excluded in order to

focus on currently under-researched areas. These selection criteria resulted in broad provincial representation but excluded communities in the Fraser Region (see Table 6). Key informants were identified through phone calls to shelters, food banks, and CMHA branch offices, as well as the Dze L K'ant Friendship Centre Society's existing organizational network. Between one and seven key informants (an average of 3.5) were contacted in each community (see Appendix C for a list of key informants). Key informants were asked to estimate the number of absolutely homeless people as well as the number of people at-risk of homelessness, based on the definitions used in this report. Due to the limited timeline and jurisdictional considerations, estimates of homelessness in BC's 200-plus First Nations reserves are notably missing from this process. The number of homeless individuals with SAMI on reserve is estimated to be high and warrants further study.

3.2.3.2 Results

Informants across all communities reported a very high prevalence of SAMI, ranging from approximately 60% to 100% of the absolutely homeless and about 30% of the at-risk populations. Key informants reported that addiction was the most prevalent mental health problem in both the street homeless and at-risk populations, followed by concurrent disorders and, less frequently, mental illness alone. It was noted that marijuana, crack/cocaine, crystal meth, and alcohol are the most abused substances. With regards to mental illness, mood disorders and symptoms related to trauma and abuse were the most prevalent. It was also noted that developmental disorders, particularly along the fetal alcohol spectrum (FAS), were highly prevalent.

Table 6 summarizes the estimated number of individuals who are absolutely homeless and at-risk of homelessness across all the communities sampled. The proportion of the absolutely homeless population that was estimated to be "couch surfing" was also noted, as well as the estimated proportion of each population that suffers from mental illness and/or addiction. The estimated number of absolutely homeless ranged from approximately 10 individuals in Revelstoke to between 250 and 300 in each of Courtenay, Port Alberni, Dawson Creek, and Vernon. Lower estimates tended to focus on the numbers of homeless people on the streets while higher estimates tended to include those who are couch surfing. Approximately half of the absolutely homeless population was estimated to couch surf, with even higher rates in northern communities. In particular, women and youth tend to couch surf rather than live on the streets or use shelters.

Some informants were reluctant to estimate the size of the at-risk population. Estimates ranged from as low as 30 in Quesnel to as high as 500 to 5,000 in Campbell River. Lower estimates tended to include individuals in substandard housing, while higher estimates also included individuals who are living at or below the poverty line. Many communities experience a rise in the homeless population in the summer and/or when there are jobs available. Across the majority of communities sampled, Aboriginal peoples were disproportionately represented among absolutely homeless and at-risk populations.

Many informants noted that the small number of landlords in rural areas leads to discriminatory practices against people with SAMI who often develop "bad reputations" which prevent them from accessing housing. Informants who work with Aboriginal peoples consistently noted a need for more life-skills workers. Several informants cited the trauma and intergenerational effects of the residential school system, and the need for life-skills/support workers to address these issues. Across the province, there is a need for more advocacy workers to help homeless SAMI individuals interface with the housing, health, income assistance, and legal systems. A number of trends specific to certain regions were also noted:

VCHA

- Rapid gentrification in Sea-to-Sky communities related to the 2010 Olympics, resulting in rapid loss of low-income units.

VIHA

- An influx of retirees has resulted in increased housing prices;
- More people living outdoors than in other regions due to mild weather conditions;
- Significant homeless population that moves between three communities in the Comox Valley;
- Lack of affordable housing for families.

NHA

- High incidence of Fetal Alcohol Syndrome (FAS) and lack of appropriate services and staff training to address FAS-related issues;
- Landlord and service provider discrimination against First Nations people;
- Seasonal variations in homelessness tied to industry;
- Economic boom in north east sector - sharp decrease in vacancy rates has pushed many low-income people out;
- Many physicians won't work with individuals with SAMI.

IHA

- Influx of retirees and expansion of recreational facilities (e.g., Okanagan, Kootenays) has led to higher housing prices and lower vacancy rates;
- Lack of affordable housing for families;
- Tenants are often evicted from low-cost hotels in the summer to capitalize on increased revenues from tourist season;
- Poor transportation between rural areas (where low cost housing is available) and service centers;

Table 6: Summary of Key Informant Interviews conducted by CMHA-BC Division

Health Authority	Town	Absolutely Homeless			At-Risk for Homelessness	
		Estimated #	% Couch Surfing	% with Mental Illness &/or Addiction	Estimated #	% with Mental Illness &/or Addiction
VCHA	Lilloet	30	75%	80%	900	50%
	Powell River	75	90%	100% A 75% MI	100+	?
	Sechelt	35+	"Many"	65-80%	100+	?
	Squamish	25	?	60%	?	?
	Whistler	15	?	60-80%	100	?

<i>Health Authority</i>	<i>Town</i>	<i>Absolutely Homeless</i>			<i>At-Risk for Homelessness</i>	
		<i>Estimated #</i>	<i>% Couch Surfing</i>	<i>% with Mental Illness &/or Addiction</i>	<i>Estimated #</i>	<i>% with Mental Illness &/or Addiction</i>
VIHA	Campbell River	70 (city) 300 (region)		80%	500 (substandard) 5,000 (low-income)	25-50%
	Courtenay	250	50%	35% A 25% MI 30% both	1,000	?
	Duncan	130	25%	95% A 60% both	100 (substandard) 4,000 (low-income)	5-30%
	Parksville/ Qualicum	25	50%	90-100%	?	?
	Port Alberni	100-250	?	70-100%	?	?
	Port Hardy	30-40	?	80% A 50% MI	80-100	50% +FASD
	Chetwynd	100	90%	35%	100-300	80% A 50% MI
	Dawson Creek	300+	95%	5-50%	130-700	10-45%
NHA	Fort Nelson	70-130	75%	80%	50 (sub-standard) 500 (low-income)	?
	Fort St. John	100	50-70%	70%	3,000+ (sub-standard & low-income)	40%
	Houston	"Quite a few"	"Many"	100%	200	"High"
	Quesnel	120-140	95%	80%+	30-40	?

Health Authority	Town	Absolutely Homeless			At-Risk for Homelessness	
		Estimated #	% Couch Surfing	% with Mental Illness &/or Addiction	Estimated #	% with Mental Illness &/or Addiction
	Smithers	220	90%	50%	1,000 (sub-standard & low-income)	“Quite a few”
	Prince Rupert	100-155	60%	70% +FASD	150-300	80%+
	Terrace	40+	“Many”	75%+	350 (sub-standard) 2,500 (low-income)	95%
IHA	100 Mile House	45	65%	80%+	60-115	60% MI Many have A
	Cranbrook	50-100	50%	40-70%	100-120 (sub-standard)	?
	Merritt	22	50%	50-100%	50 (sub-standard) 300 (low-income)	80% (mostly A or concurrent)
	Penticton	15-120	?	100%	70-1,500	80%+
	Revelstoke	5-10	?	50-100% A 25% MI	200-400	?
	Vernon	300	50%	70-80%	100-200	?
	William’s Lake	35	?	80%+	200-400	80% A

3.2.4. Step 4: Estimating the Proportion of Adults in BC with SAMI who are Absolutely Homeless

Research suggests that approximately 20% of the inadequately housed population is absolutely homeless (www.raisingtheroof.org). We would expect that the proportion of absolute homelessness would be even greater amongst the SAMI population. **Our expert consensus group agreed that approximately 30% of the inadequately housed SAMI population is “street homeless”.** These estimates are likely greater in communities with active drug and sex trades and lower in less troubled communities. Based on our estimates of the SAMI population in BC that is inadequately housed (see Table 2), **it was estimated**

that between 8,000 and 15,500 individuals with SAMI are absolutely homeless across BC (see Table 7).

Table 7: Estimated number of adults with SAMI who are absolutely homeless¹.

<i>Health Authority</i>	<i>Lower Estimate²</i>	<i>Upper Estimate</i>
VCHA	2,000	4,000
VIHA	1,500	3,000
FHA	2,500	5,000
IHA	1,500	2,500
NHA	500	1,000
BC	8,000	15,500

¹ 30% of inadequately housed population from Table 2 (Expert consensus group, February 2007)

² Estimates have been rounded to the nearest 500

It should be noted that these estimates are based on prevalence rates from the epidemiological literature and provider consensus, i.e., anticipated rates of SAMI based on population size and consensus. The estimates do not take into account geographical factors such as services that are concentrated in specific areas, favorable economic or climate factors which may attract homeless people to a particular region, ethnic/cultural factors, etc.

If the results of the homeless counts outlined in Table 5 are combined with the estimates of absolute homelessness obtained through key informant interviews (Table 6), the number of absolutely homeless people across BC can be estimated. The cities and towns included in Tables 5 and 6 comprise 72% of the total BC population. When the homeless counts for each jurisdiction are summed, 7,412 people have been identified as absolutely homeless across the province. If this number is extrapolated to the entire population, **an estimated 10,500 people are absolutely homeless**. Given that homeless counts are considered to grossly undercount the homeless population we would expect this figure to be a low-end estimate. In addition, the key informant interviews summarized in Table 6 indicated that, on average, about 75% of the absolutely homeless population has problems related to mental illness and/or addiction. If we apply this figure to the estimated number of absolutely homeless people (10,500), **an estimated 8,000 people who are absolutely homeless and have a mental illness and/or addiction**. This estimate approaches the estimated range developed from population prevalence information. Given the under-reporting inherent in homeless counts, the actual number of absolutely homeless people with SAMI is likely much higher and would likely fall into the range outlined in Table 7. While we acknowledge that these estimates are 'rough,' however, they provide some support for our estimation process.

3.3. Current Capacity of Housing/Support Services for people with SAMI in BC

Considerable progress has been made over the last five years in expanding the capacity of mental health and addictions housing and support for adults with SAMI. The total number of beds/units province-wide has increased from 4,940 in 2001 to **7,741** as of September 2006 (see Table 8). There was some debate amongst our Expert Group around whether or not to include units provided through the BC Housing Health Services Program, as these individuals do not receive the same level of support as provided in other housing options. The Health Services

Program provides individuals with mental illness (1) subsidized housing in existing units managed by BC Housing or non-profit societies; (2) case management services through community mental health centres; and (3) access to a nurse or mental health worker who provides guidance and on-going support to link individuals with community services. Inclusion of these units does not substantially alter the final estimates of gap between supply and demand, therefore, they have been included in our estimates. Note that many other supported and social housing units currently exist province-wide, but are designed for seniors, low-income families and other vulnerable sub-groups. Also many housing units provide rental subsidies but do not offer adequate support (i.e., case management services, community living support, and on-going follow-up). These units, although available to people with SAMI, were not counted as part of the current supported housing stock. Please see Appendix A for definitions of the housing/support continuum.

Table 8: Mental Health (MH) and Addictions (A) Community Beds by Health Authority

HA	Licensed Residential Care	Family Care Homes	Supported Housing	Low Barrier (MH&A)	SUB-TOTAL	BC Housing Health Services	TOTAL
VCHA	456	23	1,371 235 A	776	2,861	405	3,266
VIHA	156 4 A	59 2 A	1,052 6 A	--	1,279	166	1,445
FHA	650	13	903	--	1,566	322	1,888
IHA	182	76	505	--	763	110	873
NHA	44	1	198	--	243	26	269
BC	1,492	174	4,270	776	6,712	1,029	7,741

Note. Low Barrier Housing and the BC Housing Health Services Program fall into the broad definition of supported housing, but have been parsed out for policy and planning services.

We acknowledge that many people with SAMI are incarcerated or living in addictions treatment facilities and other transitional housing units; however, given that prisons and transitional housing are not permanent or adequate housing they were not included in the current report.

3.4. Step 5: What is the Gap between Current Capacity and Unmet Need?

Given the approximately 8,000 beds/units available for people with SAMI province-wide and the estimated need, ranging from approximately 17,500 to 35,000, it is clear that there is an urgent need for more housing-plus-support options for people with SAMI. Even if we had accounted for individuals with SAMI who are incarcerated and housed in tertiary care facilities, the gap between supply and demand would remain considerable. As reported in Table 9, approximately 10,000 to 28,000 individuals with SAMI have unmet housing and related support needs. This population is referred to as those 'at imminent risk' and form the basis for the cost analyses in Section 5.

Table 9: Estimated Gap between Current Capacity and Unmet Need for the BC SAMI Population aged 19-80 years, by Health Authority.

HA	# of Inadequately Housed Adults with SAMI Needing Support		Gap between Current Capacity and Unmet Need	
	Lower Estimate	Upper Estimate	Lower Estimate	Upper Estimate
VCHA	4,500	9,000	1,500	6,000
VIHA	3,000	6,000	1,500	4,500
FHA	6,000	12,000	4,000	10,500
IHA	3,000	6,000	2,000	5,000
NHA	1,000	2,500	1,000	2,000
BC	17,500	35,500	10,000	28,000

3.4.1. How do our estimates compare to previously established estimates?

According to the VCHA Regional Framework for Mental Health and Addictions Housing (2006), the expected housing demand for mental health clients in 2006 was 3,084. Mental health housing need/demand projections were created by using existing waitlists and then applying a blended formula of population (60%) and mental health team caseloads (40%) to adjust for future need. In addition, it was estimated that approximately 8,000 individuals with substance use disorders would be “unstably housed” in 2006. Addictions housing projections were created through an analysis of current dependent users of alcohol and illicit drugs and assumptions regarding both the stability of their housing and their willingness to enter into recovery. Approximately 20% or 1,600 of these individuals were estimated to be in the action phase of recovery and thus “ready” for supported housing. In total, 4,684 individuals were estimated to be in need of housing. If the available housing supply for VCHA (3,266 beds) is subtracted from this estimated demand, we are left with an estimated demand of 1,418 beds (838 MH and 580 A). This estimate of unmet need, which is based on a different process, falls around our lower estimate, thus providing some support for our process of estimation. We would expect our estimate to be higher as we did not exclude people who may not be “housing ready” due to their addiction or difficult behaviours.

The FHA also developed housing demand projections in their Mental Health Housing Plan (2006). They estimated that 1,612 individuals between 19 and 90 years with mental illness would require housing assistance in 2006. The authors acknowledged that this estimate is conservative as it was based on March 2005 residential and housing supply, and did not account for future demand. Furthermore, addictions housing projections were not included in this estimate. If the available housing supply for FHA (1,888 beds) is subtracted from this estimated demand, we are left with an estimated surplus of 276 beds. Given that a surplus of beds is clearly not a reality in the FHA, their projections appear to be overly conservative. It should also be noted that individuals with developmental disabilities and complex and challenging behaviours were not included in the FHA estimates.

3.5. Challenges to Housing and Support

A number of literature reviews, including interviews and focus groups, have explored homeless persons' ability to access supported and social housing (Burt & Anderson, 2005; CMHC, 2005; CMHA-BC Key Informant Interviews, 2006). The results of these studies have highlighted a wide range of challenges, which are summarized in three sections: systemic challenges, organizational/community challenges, and personal issues or limitations.

3.5.1. Systemic Challenges

The limited supply of affordable and/or rental housing is the most frequently cited barrier to housing by housing providers, agency staff, and homeless people themselves.

Long wait times for subsidized units (especially in regular non-profit housing, as opposed to supported housing or shared units) was also cited as a common barrier. Even a relatively short wait-time of 6 months to a year does not meet the need of someone who is homeless with SAMI. A lack of housing options, including housing with minimal rules and long-term supports, is also a widely cited barrier in the literature (e.g., Burt & Anderson, 2005; CMHC, 2005; CMHA-BC Key Informant Interviews, 2006).

Homeless people often report facing barriers getting onto waitlists and are disadvantaged when there is no local system for coordinating access to subsidized units. Also, the requirement for social housing providers to maintain waitlists can disadvantage homeless applicants. For example, chronological lists, whether with an individual provider or system-wide, disadvantage people who need immediate assistance. On the other hand, point-score systems can be less favorable to some subsets of the homeless population such as singles or those exiting transitional housing. Rules such as ineligibility due to outstanding debts to social housing providers and the requirement to have a source of income are also identified barriers.

People with SAMI who are homeless require a broad range of housing, health and mental health care, substance abuse treatment, and social services, all of which are typically provided by separate agencies with separate funding streams. The burden of coordination falls on the individual, but people with SAMI who are homeless are ill-prepared to navigate a fragmented service system.

3.5.2. Community and organizational challenges

Many examples of barriers that occur at the *community or organizational level* have been noted by housing providers, agency staff, and focus group participants. They include the following:

- Applicants perceived as non-conforming with support agency or housing provider expectations;
- Waitlist procedures requiring regular updates from applicants in order to retain their place on the list;
- Application procedures requiring interviews, home visits, or criminal record checks;
- The length of time on the waitlist (often over one year);
- Poor capacity among some shelter services to provide one-on-one assistance to homeless individuals and families in their housing search;
- Few programs to help stabilize formerly homeless households once they have been re-housed;
- Rules that bar individuals from using certain services, resulting in homeless people with complex mental health and addictions problems being unable to obtain help;

- Applicants from low-barrier housing/shelters being labeled as 'undesirable tenants', which renders them unable to access permanent housing, as well as other forms of discrimination by agency staff and the community;
- Many social housing providers unable to offer housing to individuals with significant mental health or addictions problems due to lack of supports, and concerns about applicants' suitability within the existing tenant group;
- Requirement among many social housing providers that incoming tenants be able to live independently and maintain their unit, or be able to broker any supports they need;
- Rules about pets, guests, or substance use.

3.5.3. Individual Challenges or Limitations

Barriers resulting from *individual circumstances or limitations* have also been widely noted, including:

- Addictions, mental health and behavioural issues (e.g., aggressive and violent behaviour that creates problems for landlords and other tenants);
- Symptoms of SAMI such as paranoia and erratic behavior often make it difficult for clients to retain housing;
- Some people with SAMI are resistant to leave the streets because they fear change;
- Histories of criminal behaviour, bad credit and evictions, and a lack of money management and other life skills (particularly in smaller communities where tenants can quickly gain a reputation for being difficult);
- Having mental and physical health support needs which housing providers cannot meet;
- Not having a phone, access to voice mail, or an agency willing to field calls on one's behalf;
- Owing rent arrears to a social housing provider or having had a previous unsuccessful tenancy with the provider;
- Not having a social support system;
- Being without linkages to health professionals and social support services;
- Lacking income or being unable to keep employment;
- Personality characteristics such as being shy about talking on the phone, lack of confidence, or low self-esteem;
- Language and cultural differences.

3.5.4. Understanding the Practices that Create Barriers

In examining the barriers that homeless people face in accessing supported housing, it is useful to consider the operating environment and the context within which exclusionary practices emerge.

Decisions about waitlist management practices take into account the interests of stakeholders and the public. Homeless applicants are but one of the potential tenant groups for most public, non-profit or co-op housing providers. Funders want to know that waitlists are managed in a way that is equitable and defensible. Providers and their boards want to feel they are fulfilling their mission and running their operations in a fiscally responsible way. Many housing staff want to know that incoming tenants will have successful tenancies and will not be a burden on the resources of the organization. Tenant communities want to feel safe and secure and experience a sense of belonging.

Like waitlist management, decisions about application processing (home visits, eligibility assessments, suitability assessments, interviews at time of application and/or pre-offer, references, credit checks, and data collections) are indicative of an environment where housing providers are balancing many interests. Funders impose requirements on housing providers; the boards of co-ops and non-profits and their

tenant/member selection committees have requirements; and housing staff have their own priorities when working with applicants including a responsibility to the applicant, to the tenant community as a whole, and to their board of directors. The desire among housing providers to have some control and autonomy over their waitlist and tenant selection processes can lead to reluctance to support local initiatives for coordinated intake and processing of applications for subsidized units.

The feedback from housing providers who are unable to house homeless individuals or individuals with complex support needs typically relates to:

- Their inability to house applicants quickly because of long waitlists;
- The need for tenants to live independently while being part of a community; and
- The ability of vulnerable households to meet their obligations as tenants (e.g., with respect to unit maintenance, keeping their support systems in place, providing for their own needs, paying rent on time, and having respectful relations with neighbours).

The limitations felt by some 'regular' housing providers in housing homeless or 'hard-to-house' clients have created a niche and a need for providers who have a specialized mandate to house and support this population.

For the homeless SAMI applicant, the difficulties in accessing supported or social housing have a significant impact on their path out of homelessness. The applicant can 'get lost in the system,' experience endless referrals with no chance of being housed, or be denied access to help and treatment. Limited access to supported housing can result in ghettoization of homeless or vulnerable households in substandard housing in less desirable areas of the cities and towns, and in unsafe or overcrowded situations. Without adequate and affordable housing options that are linked with supports tailored to individual needs, the possibilities of being re-housed and maintaining housing are diminished.

4. Review of Housing and Support Models

“The results of a decade and a half of research to determine what works to end homelessness are fairly conclusive about the most effective approaches...without housing, virtually nothing else works.”

Martha R. Burt

4.1. Introduction

There is a growing body of published and unpublished literature on models and approaches to the provision of housing and support for persons with SAMI. Housing is arguably one of the most important factors affecting long-term outcomes. The interactions among homelessness, housing, health, and the use of social, health, and criminal justice services are very complex and require further research before any conclusions can be made. Nevertheless, the research does provide some guidance for housing and supporting the SAMI population, and a number of innovative programs and plans to end homelessness have been implemented in a wide variety of jurisdictions around the world. All persons, regardless of disability, race, gender or ability to compete in the marketplace, have a right to decent and affordable housing (Carling, 1993).

In BC there are over 83,000 social housing units built under Federal and/or Provincial programs to accommodate low and modest income households (BC Housing, 2006). According to the BC Housing Registry, approximately 10,000 households were waiting for social housing in 2003. Waitlists tend to be comprised of seniors and families given that the majority of available units are intended for these populations. As a result, low income singles who have SAMI are often under-represented on waitlists and are under-served by available social housing options.

Individuals coping with SAMI are often unemployed or underemployed, and many subsist on some form of income assistance. Very low-income individuals are drawn into poor neighbourhoods in BC's urban and semi-urban centres to access hotel accommodation where rents are geared to benefit payments. Many individuals with SAMI receive minimal support and often enter the drug and sex trades. Without adequate support, the path from inadequate housing to street homelessness is often unavoidable. The provision of affordable housing and support assists individuals with SAMI to focus on recovery and to avoid environments where inadequate accommodation and ready access to drugs can interfere with recovery.

This section of the report reviews models of housing and support for people with SAMI. First, the methods used in data collection are briefly reviewed, as well as our use of the *housing continuum* as a conceptual framework.

Next, an overview of the evidence regarding housing and support for persons with SAMI is provided. Specific approaches to housing and support are reviewed, including traditional supported housing, newer manifestations of supported housing such as low barrier housing and Housing First, addictions housing, assertive community treatment, and other forms of supported treatment.

Finally, we recommend an approach to housing and support for persons with SAMI in British Columbia. We focus on housing as the foundation for all other interventions; the role of income assistance as a key, parallel plank in meaningful interventions; and the role of Assertive Community Treatment and other supports.

4.2. Methods

The published literature was accessed by a series of electronic databases⁴. A series of strategic search terms were developed, focusing on the following key words in English materials since 1990: housing, serious mental illness, addictions, and support services. We also collected unpublished documents, business and strategic plans, and vision/mission statements through an extensive web search and e-mail polling of key informants and stakeholders. We reviewed the web sites of federal and local governments, health regions/authorities, relevant non-governmental organizations, foundations, and societies. Finally, we contacted relevant service providers, policy makers and professionals who work in the area of housing and support for people with SAMI. Overall, data collection yielded 618 documents and papers from around the world. (These materials will be made available electronically on CD).

Review of the literature and existing documentation revealed a diverse range of terms related to housing and support services. **Supported housing is broadly defined as independent housing in the community that is coupled with the provision of community mental health and support services** (Carling, 1993). It emerged in the 1980s as an alternative to custodial care, and includes a range of housing options with different levels of support intensity from group living situations to progressively more independent housing. In order to ensure a measure of consistency and clarity, Appendix A provides definitions of housing and support options along the continuum.

4.3. The Housing Continuum

Our review of housing and support models for people with SAMI was informed by the notion of a '*housing continuum*' ranging from street-outreach services, to shelters, to short-term or transitional housing, to low-barrier housing, to longer-term permanent housing. Although we focus on low-barrier and permanent housing in this report, the housing continuum is a useful conceptual framework; it highlights the issue of '*continuity of care*' across different phases of the continuum as well as the complexity of providing housing and supports to the diverse spectrum of persons with SAMI. (See Table 10 for the housing and support options currently available to individuals with SAMI in BC, adapted from BC's Best Practices for Housing, 2000)

The traditional continuum model suggests that individuals progress in a step-wise fashion from emergency and transitional programs with more intensive support and monitoring to more permanent, independent living situations. Many researchers have criticized the continuum model of housing (e.g., Tsemberis et al., 2004). A continuum implies linearity in housing/support needs that often does not exist in reality. Some individuals do not progress to independent housing while others can skip levels along the continuum.

As an alternative to the continuum model, many housing advocates and researchers have argued for a *housing first* model, that by-passes transitional housing. Proponents of this model argue that independent housing should be offered immediately in order to prevent homeless people from becoming caught in the shelter system and the cycle of chronic homelessness (Tsemberis et al., 2004). There is considerable debate as to the effectiveness of the continuum versus housing first model of supported housing. Before turning to

⁴ ABI Inform, Book In Print, CINAHL, Cochrane Database of Systematic Reviews (CDSR), Communication Studies, Criminal Justice Abstracts, CSA Sociological Abstracts, CSA Social Services Abstracts, CSA Worldwide Political Science Abstracts, Database of Abstracts of Reviews of Effects (DARE), Dissertation Abstracts, EMBASE, ERIC, Health Sciences, Health and Psychosocial Instruments (HaPI), HealthStar, Management & Organization Studies, Medline, MEDLINE, PAIS International, Political Science, PsycARTICLES, PsycBOOKS, PsycEXTRA, PsycINFO, Sociology, and Urban Studies & Planning.

the research on supported housing, we will briefly describe the evolution of supportive and supported housing programs.

Table 10: Housing and Support Options Currently Available to Individuals with SAMI in BC

Residential Care Models	Traditional Supported Housing Models	Alternative Models	Emergency & Transitional Housing
Licensed Residential Care Facilities (fully or partially staffed)	Satellite Apartments/ Mobile Homes	BC Housing Health Services Program	Shelter/hostel accommodation
Family Care Homes	Block Apartments	Supported Independent Living Program (regular or enhanced)	Transitional Housing (short-stay crisis stabilization)
	Congregate Housing		Low Barrier Housing
	Group Homes		

4.4. The Emergence of Supportive Housing

In the mid-1970s supportive housing began to appear in Canada as an alternative to custodial models of care for individuals with SAMI. Compared to custodial models, wherein all residents remained registered as hospital inpatients, alternative programs tend to be smaller and focus on skills training and community integration (Trainor et al., 1987). They are typically operated by non-profit agencies within a rehabilitation framework and encourage residents to be involved in decision-making. In most cases, staff have at least some training in social work or psychiatric rehabilitation. Alternative housing falls into two main categories: supportive and supported. **Supportive models** were the first to be developed and typically take the form of co-operatives and group homes. The support provided is tied to the facility and the people living there are seen as program clients. More recently, a different approach to alternative housing has emerged. This approach grew out of concerns about the tenancy rights of individuals in all kinds of supportive housing. Some individuals no longer needed or wanted the support services that were provided in their particular housing environment, or wanted services that could follow them when they moved. Called **'supported' housing**, this new approach *de-links the housing and support functions*. Support services are provided from outside the home, often by a different agency than the housing provider, and are portable, in that they can move with the client (CAMH, 2005).

Unlike other housing programs developed for individuals with serious mental illness, supported housing was designed to be permanent, with each tenant having a lease protecting his/her tenancy rights. For example, since 1981, Mainstay Housing in Toronto has developed supported housing models to meet the needs of people with SAMI and other complex challenges. Mainstay has adopted a recovery and consumer rights-based approach, including supportive eviction-prevention strategies, harm reduction, support/case management, and referral and linkages to specialized services. The key to their success is focusing on consumer choice rather than placement (Witkowski, personal communication, 2007).

Financial support from a wide variety of sources contributed to the expansion of supported housing. As confidence in supported housing has grown, so have the size, scope, and variety of new initiatives. Supported housing has been developed in row houses, apartment buildings, scatter-site apartments, and

single- and multi-family homes. While the strengths of the approach are not limited to addressing the needs of formerly homeless people, the growth of supported housing has had a profound impact on the problem of homelessness. New York City provides a stunning example, where thousands of units have been targeted to homeless individuals. Between the late 1980s and the mid-1990s, the municipal shelter population of single adults fell from a high of nearly 10,000 individuals per night to a low of approximately 6,000. Other geographic areas have seen similar outcomes as the stock of supported housing continues to grow.

4.5. New Approaches to Permanent Supported Housing (PSH)

In the past, many PSH programs stipulated that prospective tenants had to be "housing ready." This invariably meant "clean and sober," stabilized on psychiatric medications, and familiar with the rudiments of housekeeping. As a consequence, very few people entered these programs directly from the streets; most transferred from transitional housing programs. As a result, only a small proportion (approximately 20%) of PSH units were occupied by people who were chronically homeless (Nolan et al., 2005).

Although some chronically homeless SAMI people are being served in traditional PSH programs, alternative approaches are needed. In particular, people with co-occurring mental illness and substance abuse have traditionally been viewed as "resistant to treatment." They have been beyond the reach of many traditional homeless service providers, in part because they are "difficult" but also because providers have not been equipped to serve them. Given that people with co-occurring disorders comprise a significant share of street homeless and at-risk populations, their resistance to traditional PSH, and the resistance of many providers to serving them, many communities have developed alternatives to permanent supportive housing. For example, Housing First approaches to supported housing place people with SAMI directly from the streets into permanent housing units with appropriate support services and adopt a harm reduction approach to addictions that does not require tenants to engage in treatment. Similarly, low barrier housing places no treatment or service engagement requirements on tenants, but makes a range of services available. Unlike Housing First, low barrier housing is a congregate living style and support services are provided on-site to prevent eviction and public disorder. Low barrier housing and the Housing First approach are discussed in more detail below.

4.6. Supported Housing Configurations

Housing configurations vary a great deal; this affects decisions about how to offer support services and whether it is possible to create a supportive community of tenants. Completely *scattered-site* configurations (tenants occupy apartments wherever they can find them, usually no more than one or two or up to 10% within any single building) make demands on service delivery that are quite different from the opportunities offered by operating a *dedicated building* (all tenants are part of the program). Other housing configurations include clustered and mixed-use buildings. *Clustered programs* may operate a 6- or 8-unit building completely occupied by program participants on a block with no other such buildings. *Mixed-use buildings* are usually large (100-300 units), with 20-25% of units set aside for program tenants. Other tenants may be never-homeless disabled singles, or they may be regular low-income households. *Set-aside units* may be master-leased by a supported housing program or accessed through an understanding with landlords that, on average, every fourth vacant unit will go to a program client. Another variation on mixed use is a building occupied entirely by formerly homeless people, in which tenants may include both singles and families.

In BC, support services are largely delivered by non-profit providers who operate under contract with the Health Authorities. In some cases, services are delivered by HA staff. Services are designed to be flexible and tailored to the client. Support services in these programs may include case management, service referrals, instruction in basic life skills, alcohol/drug abuse treatment, mental health treatment, health care (medical, dental, vision, and pharmaceutical), AIDS-related treatments, income support, education, employment and training assistance, communication services (telephone, voice mail, e-mail, Internet access), transportation, clothing, child care, and legal services (see Appendix B for the full-spectrum of support services available to people with SAMI in BC). The exact mix of services and who provides them can vary greatly from one community to another, and even from one program to another in the same community. This variation is partly a result of who does what in different communities, and partly due to the "piece-it-together-as-best-you-can" nature of assembling the many types of people, agencies, and funding streams typically used to create supported housing programs. However, the variety is also partly deliberate, as programs and communities sort out the most effective distribution of responsibilities among housing developers, property managers, on-site program service staff, and services delivered on and off site by staff of other agencies.

Issues that affect support services structure include:

- **The appropriate division of labour between property management and case management.** Most programs separate these two functions, either by assigning them to completely different agencies or by dividing their own staff into distinct property management and services teams. This prevents the conflicts of interest that may arise in handling non-paying tenants or other issues related to lease conditions.
- **Whether to provide services on-site or encourage tenants to navigate community service systems.** This issue is particularly relevant in mixed-use and dedicated buildings. Tenants often prefer on-site services as they are more likely to use services that are convenient, particularly in programs where tenants are not required to engage in services. However, others perceive on-site services as overly intrusive and prefer to access services in the community.
- **How to maintain tenant involvement in services when they are free to choose to use them or not.** Housing First programs need to effectively offer services, as they cannot require tenants to use services. Staff often characterize their role as engaging the client, making suggestions, checking up, and generally being available. Tenant word-of-mouth is often viewed as the best referral mechanism; acting in ways contrary to tenant free choice quickly spreads and compromises one's ability to assist tenants. For many service professionals, this is a radically different approach.
- **How much on-site program staff should know about what services tenants are accessing.** Some programs arrange for sensitive issues such as mental health and substance abuse to be handled by contract service providers who offer services on-site but are independent of the program staff. Tenants make their own arrangements to see these service providers, and strict confidentiality is maintained. Other programs handle these issues with program staff, still maintaining strict confidentiality and voluntary use of services.
- **How to maximize service dollars, which may also be related to facilitating tenant access to services.** To facilitate client access to services, many housing programs use program staff, supported by grant monies, to provide health, mental health, substance abuse, as well as case management services. MSP or Medicare might be able to cover some of these services, freeing up grant monies, but most programs are not equipped for record keeping and billing, or to underwrite costs during what may be long lag times before reimbursement occurs.

4.7. Evidence for Congregate (Continuum) vs. Non-congregate Housing/Support Models

Some studies have found that placement in non-congregate, unstructured programs may lead to decreased functioning in various areas. For example, results from the Boston McKinney Project indicated that placement from the street directly into permanent, independent housing may have fostered increased substance abuse (Dickey et al., 1996). Other studies have suggested that direct placement into independent housing may lead to loneliness and isolation (Walker & Seasons, 2002). Therefore, the use of continuum models of treatment continues to be popular, focusing on progressive stages of client engagement including: initial engagement, basic service provision, transition to mainstream mental health/addiction services, and integration into mainstream services.

Many researchers and providers argue that treatment strategies have little or no effect and are often declined by consumers unless they feel safe and satisfied with their housing (Hadley & Culhane, 1993). They postulate that the housing transitions inherent in the continuum model may disrupt consumers' social relationships and sense of stability (Dixon & Osher, 1995; Hogan & Carling, 1992; Ridgeway & Zippel, 1990). It is also claimed that successive moves may jeopardize gains in daily living skills made in previous programs (Carling, 1993). Goering et al. (1992) found that homeless people with SAMI preferred permanent housing and more flexible supports than could be provided by programs based on the continuum model. Similarly, female users of hostels and drop-in centers expressed a preference for permanent, independent housing with a higher level of privacy than is the case in many continuum programs.

Research by Pathways to Housing, Inc. in New York City, who run a non-congregated supported housing initiative called Housing First, have found significant benefits for their model versus more traditional continuum models. Clients who were enrolled in non-congregate supported housing model that combined independent housing with ACT achieved significantly better housing tenure after five years compared to a sample of homeless mentally ill consumers (Tsemberis & Eisenberg, 2000). Similarly, Gulcur et al. (2003) found that homeless people enrolled in non-congregate supported housing achieved greater housing stability than did those enrolled in a continuum supported housing model.

The debate regarding the comparative effectiveness of the congregate vs non-congregate models may be one that ultimately has no resolution because homeless people with SAMI are a diverse population with multifarious housing and support needs (Tessler & Dennis, 1989). However, some conclusions have been drawn in the literature on supported housing. It is to these conclusions that we now turn.

4.8. Evidence Regarding Housing and Support for Persons with SAMI

For the most part, the supported housing approach was adopted in the 1990s without a great deal of evidence for its effectiveness. Recent studies have provided a more rigorous examination of a broad range of housing and support options for people with SAMI. To date, the evidence base on supported housing is small but growing (for reviews see Best et al., 2006; Rog, 2004; Newman, 2001; Fakhoury et al., 2002).

4.8.1. Evidence of Impact of Housing and Support on Resident Stability and Hospitalization

All well-designed empirical studies have noted a positive impact of supported housing on residential outcomes over time. Once in housing with supports, the majority of individuals with SAMI stay housed, are less likely to become homeless, and are less likely to be hospitalized, regardless of the specific type of

housing condition. Impacts of housing on outcomes other than those related to residential stability and hospitalization have not been consistently studied. The studies that have been conducted do not yield consistent results. For example, while some studies have shown that increased residential stability is correlated with improved illness management and treatment outcomes, the evidence for improvements in psychiatric functioning as a result of supported housing are mixed and inconclusive.

Several studies suggest that access to subsidized housing, especially rental subsidies, in turn provides access to a safer, better standard of housing (Newman et al., 1994). Subsidization also improves housing stability (Hurlburt et al., 1996; Newman et al., 1994).

4.8.2. Limited Evidence of Superiority for any Particular Supported Housing Model

The evidence for the greater impact of particular supported housing types is inconsistent, both in the comparisons that have been used and in their findings. When individuals in supported housing were compared to individuals not in any form of housing (Culhane et al., 2002; Hurlburt et al., 1996; Lipton et al., 1988), those living in supported housing had better outcomes. For example, individuals enrolled in supportive housing in New York City compared to those who remained with the status quo resulted in 69% vs. 30% living in permanent housing after one year (Lipton et al., 1988). Culhane et al. (2002) found that persons in supported housing, compared to those individuals who were not in any specific housing, had significant reductions in shelter use, hospitalizations and length of stay in hospitals and jails/prisons.

Access to affordable housing appears to be the key in these studies. Hurlburt et al. (1996) conducted a study in which individuals were randomly assigned to one of four conditions: supported housing with intensive case management or with traditional case management; and comparison housing with intensive or traditional case management. Individuals who received traditional case management were just as likely to achieve stable housing as those who received intensive case management. However, individuals who had access to rental subsidies, regardless of the intensity of the services provided, had a significantly greater probability of finding independent stable housing. Those who did not have access to rental subsidies, in contrast, were twice as likely to drop out of the program.

When supported housing was examined in comparison to alternative type(s) of housing, the results were more variable. Several studies have found no difference among the various types of housing studied (Hurlburt et al., 1996; CMHS Housing Initiative Steering Committee, 2002). In San Diego, Hurlburt et al. found differences for access versus no access to rental subsidies, but did not find differences between housing that had intensive vs. traditional case management. Six quasi-experimental studies in the CMHS Housing Initiative have not identified any major, consistent differences between supported housing and various forms of comparison housing (group homes, supervised apartments, supportive communities).

Similarly, in a randomized study comparing independent housing with group homes, Goldfinger et al. (1999) found no differences between the two groups in the extent to which individuals assigned to the independent apartments experienced a greater number of days homeless compared to those in the group homes (mean of 78 days vs. mean of 43 days, respectively); however, the finding was specific to those resident who were members of minority groups (African American or Latino). The authors speculated that the difference could be due to differential treatment by landlords and/or different patterns of substance use for this group.

The few studies that did find differences between housing types yielded somewhat inconsistent results. In a study of supported housing compared to continuum housing (Bebout et al., 2001), participants in the continuum housing showed greater improvements in stable housing, homelessness, psychiatric symptoms, and quality of life than individuals in the supported housing. Fidelity information indicated, however, that

neither the supported or continuum housing conditions held to consistent definitions. Some of the individuals randomly assigned to supported housing actually stayed in group homes for some period of time because permanent housing was scarce; likewise, those who were randomly assigned to continuum housing sometime went straight into supported housing. The authors suspect that the continuum housing may have had a greater impact due to more intensive and consistent services from the provider operating the continuum housing.

Tsemberis and Eisenberg (2000) found that, over a 5-year period, 88% of individuals in the Pathways supported housing program who also received a modified ACT approach remained in housing, compared to 47% living in a range of housing in the linear residential continuum. Similarly, in the New York Critical Time Intervention (CTI) study, Susser et al. (1997) found that the men who were randomly assigned to receive CTI in their housing had fewer days homeless (average of 30 days) after 18 months compared to those randomly assigned to receive services as usual (average of 91 days). The major impact of CTI was on extended homelessness (episodes over 54 days); 21% of the men receiving CTI experienced extended homelessness compared to 40% of men in the comparison group.

It is possible that well-defined, potentially more consistent services in supported housing (e.g., services in continuum housing, ACT, CTI), may help create an advantage in residential stability, especially for individuals with SAMI and other complex problems. However, as noted earlier, the one study that did specifically examine differences in the intensity of case management (Hurlburt et al., 1996) did not find significant differences in client outcomes.

4.8.3. Preliminary Evidence for Costs of Supported Housing

Two studies (Culhane et al., 2002; Dickey et al., 1997) have published findings on the costs of supported housing. The studies differ in the specific form of housing/support studied, the comparison used, and the findings produced. In the Boston McKinney Demonstration, Dickey et al. (1997) studied the costs of supported housing and group homes, including costs of publicly funded treatment, case management, and housing itself. The mean annual total costs for group homes was \$56,434 per person per year, over \$25,000 more than the \$29,838 total annual costs per unit for supported housing. The difference was largely due to the high housing staffing costs of the group homes.

Culhane et al. (2002) examined the costs of independent housing and supports in NYC and compared it to the costs incurred by homeless individuals who were not in housing. The results indicated that persons in supported housing had significant reductions in shelter use, number and length of hospitalizations, and length of stay in jails/prisons. The researchers estimated that placement in the housing reduced service use by \$16,282 per year per unit.

4.8.4. Evidence on the Principles of Supported Housing

Most studies of supported housing outline some kind of operational definition, however, definitions vary and are not always described in operational terms. CMHS (1997) conducted interviews with key informants in the mental health field to identify the characteristics of the ideal model of supported housing for individuals with SAMI, and proposed the following dimensions:

- The individual owns the unit or has a lease in their name, and housing is considered “permanent.”
- Housing and service agencies are legally and functionally separate.
- Housing is integrated into the community.
- Housing is affordable (no more than 40% of adjusted gross income).

- Services (including medication) offered are voluntary.
- The individual has choice in selecting housing and services.
- Services are community-based; there are no live-in staff.
- Crisis services are available 24 hours a day, 7 days a week.

The supported housing programs studied in the CMHS multi-site initiative (2002) did incorporate these principles and differed from comparison housing, but many of the alternative housing programs incorporated some of the principles as well. When the relative presence or absence of the features was tested, however, there were no significant differences between programs. No empirical study has been able to distinguish the features of housing that are the active ingredients of housing that make the difference in residential outcomes. Moreover, most studies have not adhered to a strict definition of supported housing and have not specifically examined each principle.

Consumer preference studies have focused on the principles and indicate that individuals consistently voice their preferences to live in housing that has flexible supports, is their own, and is affordable, permanent, and integrated into the community (Tanzman, 1993; Goldfinger & Schutt, 1996). Moreover, there are some data that support that living in independent housing rather than group housing is associated with greater satisfaction with housing and neighbourhood (Newman et al., 1994). Additional correlational studies have found that achieving housing stability is related to choice and to matching individual needs and preferences with appropriate settings (Goering et al., 1997). In addition, affordability receives support on the basis of studies such as Hurlburt et al. (1996) that found stability related only to access to rental subsidies.

4.8.5. Implications of the Evidence Base

The studies reviewed overwhelmingly find significant improvements in residential outcomes for individuals with SAMI who enter a range of housing with supports, but yield very little evidence in support of any specific form of supported housing. The predominance of a lack of difference in studies that compare different housing models may be due to several factors. First, the potency of housing itself on improving the client outcomes is not a new finding (Rog & Holupka, 1999). Studies for persons who are homeless with SAMI as well as other groups have found that having any stable housing has a dramatic improvement on outcomes, especially those related to residential stability and use of institutional settings such as hospitals, detox, jails, and prisons.

The ability to distinguish outcome differences between different housing models, however, is not hampered by the potency of housing alone. As noted, most studies include treatment and comparison housing approaches that are likely to affect outcomes. The comparison conditions in the models that are often volunteered for the studies, especially if random assignment is involved, are generally strong, often well-regarded alternatives. In addition, the principles of supported housing, although not empirically verified, have held consumer support for some time and have been appealing to others in the field. This acceptance of the supported housing principles has led to the adoption of some of these principles in other models typically not viewed as supported housing (Rog, 2004).

Most studies also lack other design features that could increase their sensitivity to detect any small outcome differences that may exist (Lipsey, 1990). These features include large sample sizes, random assignment, and supported housing that has fidelity to a specific model. Fidelity to a model is often difficult to sustain in the dynamic contexts in which we live (Bebout et al., 2001).

4.8.6. Unique Implementation Issues

4.8.6.1 Who fares relatively better or worse in supported housing?

The available research does not yield results that are distinct for supported housing, but rather pertain to housing with supports in general. Regardless of the specific housing approach, those who fare better in the housing are older rather than younger (Lipton et al., 2000; Tsemberis & Eisenberg, 2000); have mood disorders rather than psychotic disorders (Tsemberis & Eisenberg, 2000); and are less likely to have co-occurring substance abuse problems (Hurlburt et al., 1997; Lipton et al., 2000; Tsemberis & Eisenberg, 2000). One study has found that individuals referred to supported housing from psychiatric institutions were more likely to have poor housing outcomes, regardless of the type of housing they received. These individuals may have had relatively higher levels of functional impairment and higher rates of substance abuse and may have needed more support than they received (Lipton et al., 2000).

4.8.6.2 When is supported housing not the right approach?

The evidence from the vast majority of studies suggests that people who enter supported housing stay stably housed for at least 12 months. Those who appear to be least successful in housing drop out early, within the first 4 months (Lipton et al., 2000). Supported housing is not working when an individual cannot remain residentially stable in the housing. As noted, individuals with dual diagnoses are the most likely to drop out of any housing approach (Tsemberis & Eisenberg, 2000; Lipton et al., 2000; Goldfinger et al., 1999; Hurlburt et al., 1996), including supported housing; therefore, greater attention is needed on the specific forms of housing and services that can help these individuals remain housed.

There may be some guidance provided by what types of housing approaches consumers prefer as well as what clinicians recommend. In the Boston McKinney Demonstration, Goldfinger et al. (1999) found that both consumer preferences and clinician recommendations predicted the number of days homeless. Individuals whose clinicians were strongly opposed the client entering independent living experienced more days homeless regardless of the type of housing they entered. On the other hand, the stronger the consumer baseline preference for independent living, the fewer number of days spent homeless. Both, therefore, may be important to consider in determining when supported housing is warranted.

4.8.6.3 What organizational structure works best?

As with other aspects of housing implementation, there is little research available to provide definitive guidance on what organizational approaches work best for delivering supported housing. Supported housing is intended to be offered in the broader community by private landlords who rent directly to the tenant. Services are intended to be provided through separately funded case managers who link residents to services in the community. The general model reflects housing-services separation. It is not clear, however, if the housing and services necessarily need to be offered by different agencies (Bebout et al., 2001).

With respect to services, case management tends to be the most common service offered. Studies on case management have found that caseloads range, though the optimal range is no greater than 1:20-25. Services offered through teams as well as individual case managers have been provided and both seem to be effective. What do seem to be important, especially with case managers who are para-professionals, are the provision of supervision and the support of psychiatrists and psychologists (Susser et al., 1997). In the next section, we review the effectiveness of case management and assertive community treatment in the provision of housing support services to people with SAMI.

4.9. Case Management Services: Literature Review

4.9.1. Models of case management

Housing itself is only part of the formula in any supported housing program for individuals with SAMI; support services, most often delivered via case management, are critical. Solomon (1992) distinguished four types of case management: assertive community treatment (ACT), strengths-based case management, rehabilitation, and general case management. Solomon acknowledged that the differences between models within each of these broad types of community care are difficult to establish. Overall, there appears to be little consensus around the best way to specify models of case management.

A commonly articulated conceptualization of case management distinguishes between assertive community treatment and *other* forms of case management. Marshall et al. (1996) distinguished ACT and other forms of case management based on the following dimensions: size of case load, team versus individual case management, emphasis on outreach, and team-based services versus referring clients to other providers. Arguably, ACT has some elements in common with other forms of case management as well as some unique features. It is therefore reasonable to examine both the common and the specific effects on outcomes of these different approaches.

The *vocational model* (e.g., supported employment) assumes that occupational engagement benefits clients in non-vocational domains by increasing self-esteem, aiding control of psychiatric symptoms, and improving quality of life (Bond, et al., 2001). The cumulative effects of work on psychiatric symptoms, quality of life, and self-esteem were studied among unemployed clients with SAMI receiving vocational rehabilitation (Bond et al., 2001). The authors found that the competitive work group showed higher rates of improvement in symptoms, satisfaction with vocational services, leisure, and finances, and in self-esteem than did participants in a combined group that performed minimal work or no work.

The case management agencies involved in most supported housing programs do not specifically ascribe to any one model; some agencies have a strong vocational component while others are more clinically oriented. Clark and Rich (2003) compared homeless SAMI clients who were receiving *supported housing* (access to housing and housing-support services, case management, and a variety of services from medication management to vocational training) to those receiving *case management only* (active outreach, engagement, some on-site counselling, medication management, assistance with obtaining housing, and linkages to other psychosocial services). Overall, clients achieved better housing outcomes with the supported housing program than with case management alone. Clients with less severe mental illness and/or addiction did equally well with supported housing or case management alone. The results suggest that **the effectiveness and ultimately the cost of homeless services can be improved by matching the type of service to the consumer's level of psychiatric impairment and substance use rather than by treating mentally ill homeless persons as a homogeneous group**. Similarly, Lambert (2002) found that in a case-management model, treatment decisions were pivotal in whether or not the clients were likely to achieve positive outcomes. Further, matching services to needs was important to overall change. Brekke et al. (1997) also provided evidence for matching services to client need; for example, clients in a vocational program had more positive outcomes in acquiring and maintaining jobs than in a more general support program.

In summary, the term case management and its various models are not consistently defined or implemented in the literature. Mechanic (1995) referred to the case management literature as a "confusing wasteland" with some studies showing successful results while others did not. He recommended that it is

better to consider dimensions of care, linkage of services, and outcomes achieved. The challenge for future research is to understand the conditions under which programs achieve positive outcomes.

4.9.2. Assertive Community Treatment

Assertive Community Treatment (ACT) is a model of care which *provides treatment and rehabilitation in addition to case management functions*. An extensive body of research over the past 30 years has shown that ACT meets criteria for status as an empirically-supported treatment for individuals with severe mental illness (see Ziguras & Stuart, 2000 for a review). In Canada, ACT has been most extensively developed in Ontario (see Ontario Program Standards for ACT Teams, 2005). Although ACT has been extended and modified over the past 25 years, experts generally agree on the following key ingredients (McGrew & Bond, 1995; see also Ontario Program Standards, 2005):

- Multidisciplinary staff
- Integration of services
- Team approach
- Low client-staff ratios (1:20-25)
- Locus of contact in the community
- Medication management
- Focus on everyday problems in living
- Rapid access (24 hr coverage)
- Assertive outreach
- Individualized services
- Time-unlimited services

The typical goals of case management, such as preventing hospitalization, improving quality of life, improving client functioning, as well as some typical case management activities (e.g., service planning, assessment, and advocacy), overlap with those for ACT programs. However, the methods and resources used to achieve these goals differ. Traditional case managers usually 'broker' services (i.e., link patients to other service providers) rather than intervene directly. Brokered case managers usually have individual case loads, typically averaging about 30+ clients, and far more circumscribed job duties (Ellison et al., 1995). Studies have confirmed large differences in practice between ACT and brokered case management (e.g., Essock & Kontos, 1995; Teague et al., 1998).

Ziguras and Stuart (2000) conducted a meta-analysis to investigate the effectiveness of case management in general and to compare outcomes for ACT and clinical case management. Both types of case management were effective in improving outcomes as measured by clients' level of social functioning, symptoms, client and family satisfaction, and family burden of care. Also, the authors found that while clinical case management increased the proportion of clients hospitalized, it decreased the total length of stay. In line with previous findings, **ACT programs were superior to clinical case management in reducing hospitalization, both in terms of the proportion of clients admitted and the total length of stay. However, both ACT and clinical case management were equally effective in improving symptoms, social functioning, and client satisfaction with services.**

Comparisons of ACT and clinical case management programs should be interpreted with caution as different programs deal with different populations of clients (e.g., homelessness, severity of SAMI, legal involvement). It is also important to consider the effect of different aspects of case management on outcomes. ACT programs often include a specific goal to avoid, or at least minimize, hospitalization, and staff may be able to make decisions about admissions, while staff in other programs cannot. This decision-making ability may have a major influence on hospitalization as a measure of outcome, independent of other considerations for admission such as mental state or level of social functioning (Ziguras & Stuart, 2000).

Focusing on the subset of the homeless population with severe mental illness, Coldwell and Bender (2007) used meta-analysis to assess the effectiveness of ACT versus standard case management. Six randomized controlled trials were identified. Overall, these studies showed that ACT clients had a 37% reduction in homelessness and a 26% improvement in psychiatric symptom severity compared with standard case management. Hospitalization outcomes were not significantly different between the two groups.

The two decades since the introduction of ACT (Stein & Test, 1980) have witnessed a variety of adaptations and expansions of ACT in response to different patient groups. The ACT model is a widely recommended treatment approach for people with SAMI. However, **in order to achieve maximum effectiveness the standard ACT model often requires some added capacity.** In addition to a specialized consultation (or outreach) unit, community treatment should also include supported housing, rehabilitation, crisis response/respice care, acute care, access to tertiary acute care, and, for a small number of individuals, access to long-term tertiary residential facilities. Moreover, ACT programs do not work in isolation – they are most successful when the service system is adequately financed, supported, and well managed. Despite the continuum of community mental health and addiction services that exist in many jurisdictions, it still remains easy for multi-problem clients to fall through the cracks unless they are targeted with specific and comprehensive programs (Stroul, 1989).

The value of portable, tertiary-level community-based services such as ACT have been advocated for overcoming the otherwise vested interests of “housing staff” (be it hospitals or residences) in not facilitating client graduation to more and stable autonomy, when and where possible; Musgrave, I., 2007, personal communication). Furthermore, treatment providers and case managers often prioritize stability over recovery and independence. An emphasis on recovery and independence needs to occur across programs and systems (e.g., housing, treatment, and daily activities of case management; Richmond, G., 2007, personal communication). It should be noted that most clients do not require life-long ACT services and are eventually transferred to mainstream case management services once they are stabilized.

Service providers who deliver ACT face numerous challenges and tensions, including: negotiating governance structures; providing 24-hour coverage; balancing the clinical and administrative responsibilities of team leaders; accessing hospital beds; integrating treatment and rehabilitation; adapting services to meet changes in the population being served; and implementing ambiguous ACT standards (Krupa et al., 2004). No guidelines, standards, or policies have been developed in BC with regard to the implementation of ACT. Guidelines and program standards for ACT, such as those developed in Ontario, are critical in order for BC to move forward in this area.

In conclusion, **fully-integrated, well-defined ACT that includes supported housing and crises stabilization services that are directly managed and supported by the ACT team are recommended for homeless individuals with SAMI.**

4.9.3. Integrated Treatment for Mental Health and Addictions

Perhaps the most powerful characteristic of ACT and intensive case management is their ability to provide integrated services. There is wide-spread concern about the fragmentation of mental health and addiction service delivery, especially for homeless people with SAMI. Rosenheck et al. (2003) compared an integrated team approach versus a collaborative relationship between agencies in the delivery of psychiatric and substance abuse services. After 12 months, clients who received a higher proportion of services from agencies other than the case-management team had fewer days homeless and a greater reduction in psychiatric symptoms. Clients who were treated entirely within a single team had poorer housing and psychiatric outcomes. Thus, integrated team care is not necessarily more effective than interagency collaborations. This study suggests that fragmentation of services may be reduced by improving the interactions within and between agencies. Research suggests that the effective use of individual clinical information, which is more easily achieved by an integrated team, is a key factor in cost effective service delivery to people who require care from a range of health professionals.

Effective concurrent disorder programs combine mental health and substance abuse interventions that are tailored for the complex needs of this population (Drake et al., 2001). The critical components of effective programs include:

- a comprehensive, long-term, staged approach to recovery;
- assertive out-reach;
- motivational interventions;
- assistance in acquiring daily living and illness-management skills; and
- cultural sensitivity and competence.

Many mental health systems have implemented dual diagnosis services, but high-quality services are rare. Current approaches to improving dual diagnosis programs include: organizational and financial changes at the policy level; clarifying program goals; structural changes to support services, training and case manager supervision; and dissemination of accurate information to consumers and families to support understanding, demand, and advocacy.

4.10. Residential Care Facilities and Family Care Homes

In the past, BC has relied on heavily-staffed community-based facilities where people with SAMI live in communal arrangements with limited independence. Since the downsizing of Riverview Hospital, there has been a trend to move away from large, institution-based care toward community-based care. High structure/support facilities of a reasonable size (7-30 beds) and with a home-like atmosphere are an appropriate option for people with very high needs (e.g. people with co-morbid mental and developmental disorders who also have chronic physical disabilities, and other debilitating conditions, e.g. acquired brain injury). These facilities can also provide transitional or "step up/step down" housing to those who temporarily require acute care or crisis stabilization, but could live in a more independent supported housing arrangement in the future.

In the Family Care home model, clients are served within a family home, however, all clients are required to be connected and involved with mental health and/or addiction services and have an active relationship with a Case Manager. There is little evidence to support this model of care for the SAMI population, and it is being phased out in some jurisdictions. There is some support for Family Care Homes for people with severe

cognitive impairment and complex behavioural problems (Barry, 1982) and for geriatric populations (Gaugler, Leach & Anderson, 2004). See Appendix A for a more detailed description of Licensed Residential Care Facilities and Family Care Homes in BC.

Many clients with severe psychiatric disorders, such as schizophrenia, who require a high level of support can live independently in the community if they are adequately supported (e.g., with a fully-supported ACT team). For example, Livingston et al. (1992) examined clients in NIMH National Supportive Housing Demonstration Program, the majority of whom had severe psychiatric illness and required a high level of support services, often due to a history of violence and/or substance abuse. The majority of clients lived in group homes or residential treatment facilities prior to enrollment in the program, but were living predominantly in permanent, independent supported housing after one-year in the program.

O'Malley and Croucher (2005) caution that while greater independence is feasible for most SAMI clients, it is not realistic for *all* SAMI clients. A small proportion of SAMI clients are unlikely to progress to independent living and will require more intensively staffed specialized residential care services. When residential care is indicated, long-term programs that integrate mental health and addiction services appear to be more effective than short-term programs. For example, Brunette (2001) compared long-term and short-term residential treatment programs for clients with concurrent mental and substance use disorders. Clients who received long-term treatment experienced improvements between program entry and 6-month follow-up, and were more likely to have engaged in treatment than individuals in the short-term group. At follow-up, individuals in the long-term group were more likely to have maintained abstinence and were less likely to have experienced homelessness than clients in the short-term group. Greater levels of integration of substance abuse and mental health services have been shown to be more effective than less integration (Brunette, 2001). Due to methodological limitations in the research, the authors concluded that further research is needed to establish the effectiveness of residential programs, to characterize important program elements, to establish methods to improve engagement and retention and to clarify which clients benefit from residential care.

In conclusion, despite the fact that many people in residential facilities can live independently in the community, if they receive adequate support (i.e., rental subsidies plus ACT), some individuals do require highly supported residential settings. **Residential care can best be viewed as transitional in nature, with the goal of enabling people to move to independent/congregate apartments or scattered units with supports.** It is expected that the existing stock of residential care will continue to be reduced and to be converted to supported housing, although a small percentage of residential care stock will be retained (VCH, 2006).

4.11. New Approaches to Addressing SAMI

Access to supported housing typically requires an assessment to ensure suitability and eligibility. Both mental health and addictions housing in BC have clearly identified eligibility criteria. For example, in order to access mental health supported housing, people must have a mental illness that significantly interferes with their life, be willing to participate in planning for services, and be able to be safely housed. In order to access abstinence-based supported housing, clients must (a) have a serious dependency that cannot be effectively managed without daily supports, (b) be actively engaged in addiction treatment, (c) be referred from the addiction treatment system, and (d) be willing to engage in developing an individual recovery plan. However, many clients, particularly those with addictions, are very ambivalent about entering treatment and present with aggressive and difficult behaviours that often lead to eviction from traditional supported

housing programs. Some innovative programs have shown that *providing housing with supports without requiring clients to actively engage in treatment services* has been very effective. This approach has been developed under the Housing First model, which provides non-congregate permanent supported housing (described in more detail below), as well as the low barrier housing model, which provides congregate supported housing that is usually transitional, but does not force tenants out after a defined period (see Appendix D for a detailed description of low barrier housing provided in VCHA). In order to access low demand options, people just need to be willing and able to be housed. Evidence suggests that Housing First options increase the likelihood of tenants establishing links to mental health, addictions and medical treatments in the future (Tsemberis et al., 2006). Homeless and at-risk persons with SAMI across BC would benefit from more Housing First and low barrier housing options.

4.11.1. Low Barrier Housing

Based on information from existing identified funding streams in BC, low barrier housing is currently only available in the Vancouver Coastal Health Authority (predominantly the Downtown East Side). Functionally, different approaches to low-barrier housing operate informally in many of BC's urban centres. A recent study of frequent shelter users found that they accounted for one-third of total shelter bed usage (VCH, 2006). Low barrier housing could open capacity for shelters to address the needs of the street homeless and decrease the percentage of turn-aways (VCH, 2006). Access to low barrier housing is generally managed by housing providers. Some programs are linked to the Urgent Response Team (part of VCH) and to emergency shelter providers who use low barrier housing as a transition between shelters and permanent housing. Individuals receive on- and off-site support services (high-level or lower-level) for daily living skills, medication management, financial planning, vocational skills etc. Intensive case management and physician support are provided through the Community Mental Health Teams (see the description of high- and lower-level support low barrier housing in Appendix D). Although Low Barrier Housing is often conceptualized as a transitional form of supported housing, there are no time-limits on the duration of a clients stay. In a recent study of 444 low barrier housing units across 8 sites in Vancouver's Downtown East Side, 64% of tenants maintained housing for more than 3 years, and 17% stayed in low barrier housing for 8 to 10+ years (VCH, 2007).

A central tenet of low barrier housing is that *abstinence is not required or enforced; tenants are encouraged to pursue treatment if they wish*. Thus principles of harm reduction and motivational enhancement are often guiding philosophies. **Harm reduction** is a set of practical strategies designed to reduce the negative consequences of drug use by promoting first safer use, then managed use, and finally abstinence, if possible (Marlatt & Tapert, 1993). **Motivational enhancement** interventions are incorporated into the overall treatment approach.

Although the harm reduction approach is controversial in some circles, it has been embraced by many professional bodies (e.g., American Association of Community Psychiatrists), and reviews of best practices in addictions housing (e.g., Kraus et al., 2005; VCH, 2006) advocate a range of transitional and more permanent abstinence-based *and* low barrier housing. This model is developing some empirical support for its ability to prevent individuals with SAMI from cycling back into street homelessness (Tsemberis & Eisenberg, 2000). For people with long-term histories of SAMI, harm reduction models are among the most effective treatment approaches. The success of this model may be partly due to its acceptability by individuals with SAMI, many of whom are reluctant to stop using substances. Focus group data has revealed that clients want control over their service uptake and want service providers to respect their right to move

at their own pace. Harm reduction programs are a relatively recent concept and the empirical base for this approach is still developing.

4.11.2. Aboriginal Supported Housing Units

Given that Aboriginal peoples are over-represented among the homeless SAMI population (about 30%), supported housing options that are geared toward Aboriginal peoples are very much needed and need to be investigated. In the academic and grey literature, there are no supported housing options that take into account Aboriginal peoples' unique cultural and mental health needs. The Federal government needs to address the lack of adequate housing on reserve. Multiple families are often crowded into single-family units which contributes to spread of disease, mental illness, and family violence (Sider, 2005).

Aboriginal homeless services must be culturally appropriate and controlled by Aboriginal service providers in order to be effective (SPARC-BC, 2006). One could envision Aboriginal supported housing that contains a communal area (based on the long-house concept, for example) where tenants could practice their culture and rituals on-site; liaison workers who specialize in providing mental health and addictions treatment to this population; vocational rehabilitation workers who help tenants develop job skills while maintaining culturally-relevant skills. Trades training could also be linked to the construction of new housing units. While current services tend to treat the individual, the Aboriginal perspective would address the health of the entire community, and how it affects the individual. Moreover, the role of elders should not be overlooked, as they are highly respected among First Nations people; they could play a significant role in addressing the multi-faceted problems of homelessness even if they are not formally recognized by mainstream social service agencies. These units could be stand-alone in urban and semi-urban centres, and integrated on-reserve. Clearly, more research needs to be done on this option, and the Aboriginal community needs to be consulted and involved in the development and planning process. Housing and support geared towards Aboriginal peoples would help create a sense of spiritual and cultural belonging, which is lacking for many Aboriginal peoples (SPARC-BC, 2006). Finally, the National Aboriginal Housing Strategy (1999) advocates protecting the existing urban Aboriginal housing portfolio while also creating new housing supply and facilitating access to traditional supported housing.

4.12. Examples of Housing and Support for People with SAMI from Other Jurisdictions

4.12.1. Europe

The regulation of the quality and provision of housing and support services for homeless people with SAMI is not well documented in the European literature. In general, proposals approved by governments across Europe aim to reduce the length of time people with SAMI spend in temporary shelters by providing better prison aftercare, improving the use and effectiveness of support services, and improving the distribution of housing and the allocation of accommodation. In most European countries, policy debates centre on the role of temporary or transitional housing in the path out of homelessness and the negative impact that prolonged stays can have on developing independence and reducing the risk of repeat homelessness. In the UK, 'floating support' has developed as an alternative to traditional models of housing support provided for people living in specific accommodations according to their needs. The defining feature is that the support is attached to the person, not the property, and 'floats off' after a period of time (Quilgars, 2000). See Appendix E for a discussion of models of supported housing in the United Kingdom.

4.12.2. United States

In the US, ACT is sometimes referred to as Assertive Outpatient Treatment (AOT) and is linked to jail diversion programs. New York introduced *Kendra's Law* which supports court-mandated AOT. A five-year review conducted by the New York Bar Association with approximately 4,000 clients yielded very promising results. AOT significantly reduced rates of hospitalization, substance use, homelessness, arrest, and incarceration among people with SAMI, while at the same time increasing adherence to treatment and overall quality of life (New York State Office of Mental Health, 2005).

4.12.2.1 Shelter Plus Care

In 1993, the Connecticut Department of Mental Health and Addiction Services obtained a grant to provide Shelter Plus Care (SPC) to homeless people with disabilities (predominantly SAMI, and/or AIDS-related illnesses). This funding was distributed to local agencies, contracted to administer the program in their area. Tenants who receive rental subsidies can use their certificates to obtain permanent housing in one of many scattered-site housing units made available by the housing program or they may elect to find their own housing by developing relationships with landlords who agree to participate in the SPC Program.

In addition to the director, the program employs three housing specialists whose responsibilities include recruiting new landlords to participate in SPC and maintaining collaborative relationships with participating landlords. Further, the program has established relationships with numerous service provider agencies agreeing to participate in the required service dollar match. A SPC Committee meets bi-monthly to screen new applications. In addition to including representatives from local service provider agencies, the screening committee is comprised of many formerly homeless consumers of mental health services.

Applicants must be enrolled in formal mental health treatment at the time of their application. Although strongly encouraged, consistent with supported housing guidelines emphasizing consumer participation rather than staff control, once accepted into the housing program tenants may refuse all treatment services without losing their housing (Mize et al., 1998). Further, treatment and supportive services cannot be delivered in SPC tenants' homes without their explicit consent. Prior to receiving SPC the majority of tenants resided either on the streets or in an emergency shelter. Tenants receiving SPC are required to pay 30% of their monthly income directly to landlords, who receive the remainder from the State. SPC program placement has resulted in a cost avoidance of \$16,281 per housing unit per year relative to treatment as usual.

4.12.2.2 Pathways to Supported Housing, Inc. (Housing First)

The Pathways or Housing First program was designed in New York City to serve a vulnerable, mistrustful, but often resilient subgroup of the homeless population – individuals with SAMI. Founded on the belief that housing is a basic right, the program offers immediate access to independent housing and support services that match clients' needs and desires. The program blends essential ingredients from supported housing and ACT (Tsemberis & Asmussen, 1999). Proponents of this approach argue that it is much easier to work on substance abuse and mental health issues when clients are stably housed than when they are homeless or in transition.

An increasing number of communities in the US have developed Housing First programs. Apartments are scattered throughout the city in affordable neighbourhoods. Service coordinators assist tenants in selecting their apartment and honour the tenant's choice of neighbourhood and accommodations to the degree possible. No more than 10% of the units in any one apartment building are rented by the program. About half of the landlords allow tenants to sign their own lease, while others insist that the agency hold the lease

or act as a guarantor. In the latter case, the tenant signs a standard sublease with the supported housing agency, but still maintains the rights of tenancy.

Eligibility criteria: Individuals must be homeless and have a psychiatric disability and/or substance use disorder. Priority is given to the most vulnerable people, including the street homeless, women, seniors, and people who have physical health problems. The program does not require tenants to take medication, participate in psychiatric treatment, or abstain from substance use. Similarly, a history of violence and/or incarceration does not disqualify an applicant from entering the program.

The program is based on the following **principles**: (a) housing and treatment services are provided by separate agencies, with apartments rented from landlords in the community who have no direct link to the treatment agency; (b) support and treatment services are provided in the community; (c) services are available 24 hours a day, 7 days a week; and (d) service plans are individualized for each tenant, the frequency and sequence of services is not predetermined, and consumers are full partners in the development of service plans. Three program requirements are strongly recommended but are not absolute preconditions for housing: Tenants are asked to meet with their service coordinator at least twice a month, pay 30% of their income on rent, and participate in a money-management program.

Treatment and support services are provided by ACT teams and aim to increase personal efficacy, meet basic needs, enhance social skills, increase employment opportunities, and enhance quality of life (Allness, 1997). The majority of services are provided in the tenant's apartment or neighbourhood and range from assistance with shopping for groceries to complete mental health, substance abuse, and physical health treatment, as well as services for vocational, educational, and recreational needs. When services cannot be provided directly by the team, necessary referrals are made to other providers.

The Housing First approach emphasizes the development of a positive relationship between the tenant and the service coordinator. Developing effective interpersonal relationships is a challenge for many tenants, therefore, relationships with service coordinators often serve to improve this area of functioning.

A major program policy distinguishing the Housing First program from other supported housing programs concerns relapse. The team and tenant manage relapse crises collaboratively and services are intensified during such periods so that tenants can retain their housing. Decisions about intervention are up to the tenant unless the tenant presents a danger to self or others. Staff are trained in interventions with demonstrated effectiveness for dually diagnosed populations, such as relapse prevention (Osher & Drake, 1996). The philosophy and practice of harm reduction is often used when tenants are using substances, participating in the sex trade or other high-risk behaviours. During crises, the tenant remains assured that the apartment remains in his/her possession, and that the present crisis will not be a reason for eviction.

A growing body of research has documented the success of Housing First models at keeping even the most disabled SAMI tenants housed, and reducing costs for crisis emergency services (Culhane et al., 2002; Martinez & Burt, 2006; Tsemberis & Eisenberg, 2000). Housing First programs are very popular among outreach workers, case managers, and consumers and families. However, openings in permanent housing first programs are not readily available and turnover among tenants tends to be quite low.

4.12.2.3 Safe Havens

Safe Haven is a term used to describe a special type of housing program for chronically homeless people with SAMI who have not been successfully housed in other programs. A Safe Haven program usually takes a Housing First approach, however, it may be either transitional or permanent housing. Most safe haven programs let residents stay as long as necessary. Data from Philadelphia's four Safe Haven programs

indicate that the average length of stay is 1.3 years, and that most residents move on to PSH or to other community housing, either independently or with family.

4.12.2.4 Modified Therapeutic Communities

Therapeutic Communities (TCs) have been implemented as a method to address substance use disorders for more than 30 years. The concept is based on a theoretical model that views drug abuse as a disorder of the whole person, requiring a focus on conduct, attitudes, moods, values, and emotional management. In essence, the community is the therapeutic method. Modified TCs adapt the principles and methods of the TC to the needs of individuals with concurrent disorders as well as to the homeless. Key modifications include increased flexibility, decreased intensity, and greater individualization (Sacks, 2000). Modified TCs for the homeless incorporate services to address clients' multiple needs such as education, vocation, legal, and housing placement services (Zerger, 2002).

Recent studies of the modified TC approach reveal significant decreases in drug use and criminal activity, and increases in psychological functioning and employment (DeLeon, 2000; Sacks et al., 2001). TCs tend to result in more positive outcomes for individuals with the most severe disorders and for those who remain in treatment for longer periods of time (Zerger, 2002). Several studies have found TCs to be cost effective relative to the provision of services as usual (McGeary et al, 2000; French et al., 1999).

4.13. Other Approaches to Housing and Support for People with SAMI

In addition to harm reduction programs, a number of other innovative intervention strategies for homeless SAMI individuals have been developed. For example, traditional detoxification programs have been expanded and enhanced to include daily living skills and to bridge the gap between treatment and supported housing. Examples include the Maryhaven Engagement Center in Columbus, Ohio and the Dutch Shisler Sobering Center in Seattle.

Several programs for homeless, chronic substance abusers have combined community service work and employment expectations with traditional abstinence requirements. Community service begins immediately (10-20 hours a week), and continues even after employment begins, which occurs as soon as possible. Programs have developed extensive networks of employers willing to hire program participants. Focus group data revealed that, for many clients, community service work was the first time in their lives that they felt like they had something to contribute and were part of a meaningful community.

There is also evidence that **peer-assisted programs** may be useful in helping homeless individuals with SAMI transition to and maintain stable housing. For example, Weissman (2005) found that homeless people with SAMI who had peer advisors were more likely to follow-up with assessments, engage in services, and maintain housing.

Many BC communities have outreach and engagement programs that have no direct access to housing options for the homeless and at-risk people with SAMI. No matter how successful the outreach services are, their value in addressing homelessness is limited if the community does not have adequate, permanent supported housing. Large congregate emergency shelters are unlikely to succeed in breaking the cycle of chronic street homelessness among people with SAMI and other disabilities. Many homeless people with SAMI are not willing to stay in traditional shelters for extended periods of time. Nevertheless, many outreach programs are able to help homeless people with SAMI by providing a regular contact and support on the street, which may ease the difficulty of street living.

4.13.1. Specialized Outreach Teams for People with Complex Mental Disorders and Challenging Behaviours

An alternative to providing care exclusively within a specialized case management team is to enhance generic assertive case management teams or outreach-oriented generic mental health teams by giving them access to a specialized treatment or consultation unit. This specialized outreach team (containing forensic and corrections staff, experts in behavioural management, etc.) could also complement the services of a specialized case management team, when necessary, and could support local acute care units in the event of hospitalization (CARMHA, 2006).

4.13.2. Multi-Agency Special Case Teams

Multi-agency special case teams may work for agencies that recognize the utility of combining approaches and integrating services, but may not have the resources to address the needs of all clients. (e.g., Seattle's High Users of Crisis Public Services team). In such circumstances, relevant service providers meet to discuss special cases and create integrated service plans for clients that each provider commits to following. This system allows service providers to collaborate in a creative way about client needs and the types of services that would be helpful to particular individuals, focusing especially on services designed to reduce reliance on expensive public services. Clients sign information releases so agencies can coordinate in this way.

4.13.3. Multi-Purpose Service Centres

Another way that agencies collaborate around services for homeless people with SAMI is to develop multi-purpose service centres where clients can receive more than one type of service within the same building. The goal of such "one-stop shopping" arrangements is to increase access to services. Homeless individuals may need, but not seek, more than one service, or be willing to go to more than one location.

4.13.4. Processes to Alter Access to Mainstream Settings

Homeless individuals with SAMI require many services and supports beyond what community service providers offer (Burt & Sharkey, 2002). Many of the services and supports are provided through mainstream agencies that do not specifically focus on homelessness, including mental health, substance abuse treatment, and general social service agencies. Mainstream agencies have increased involvement in serving the chronically street homeless population through new roles in old agencies and co-location of services. Some mainstream agencies in the communities have changed their philosophy by accepting greater responsibility for serving homeless people with SAMI. These agencies have instituted measures to reduce barriers and increase access to their services. Co-location attempts to reduce barriers to services by placing staff members from one agency within the building of another agency. Finally, a computerized client/service tracking system, accessible by all agencies that serve the homeless and SAMI populations, would link agencies, promote knowledge exchange, simplify referrals, and facilitate client access to services.

4.13.5. Preventing Homelessness After Institutional Discharge

One of the most effective ways of addressing chronic street homelessness is prevention. This often involves commitment of resources to ensure housing and support services, and effective discharge planning from the many institutions that interface with homeless and at-risk people with SAMI. Some of these institutions include, but are not limited to: hospitals, treatment facilities, psychiatric institutions, correctional facilities, and sometimes Family Care Homes. In the absence of effective policies and practices around discharge, many of these institutions simply release people into local shelters.

Adequate discharge plans typically include an estimating the discharge date, collecting medical records, and making arrangements for post-release housing, confirming medical and mental health follow-up care, and other community-based services. In some jurisdictions, discharge planning is the formal responsibility of the agency releasing the individual back into the community, while in other places it is done more informally by agency staff or community-based social service providers (Community Shelter Board, 2002).

Discharge planning without the commitment of resources to assure stable housing, is not sufficient to prevent homelessness. In some communities, individual agencies have created a continuum of housing options, starting with residential treatment and including transitional, permanent supported, and affordable market housing, because they realized that many clients became homeless without these options.

Boston, Los Angeles, and some other Californian cities have programs to prevent homelessness among mentally ill offenders leaving correctional institutions. These programs involve careful interagency coordination as part of making discharge planning work. For example, the program evaluator links the client with an agency in the area where he wishes to reside after discharge. If no housing is available in the desired area, the client is placed nearby and has the option of receiving outpatient treatment in the program of his choice until housing becomes available. Once in the program, the client may transfer between programs as the need arises. Even though the jail does not have a policy requiring housing upon release, the agencies participating are required to locate housing and provide transportation to wherever the client will be living upon release. Checks are also in place to ensure that incarcerated clients are not discharged to the streets.

4.14. Summary and Conclusions

4.14.1. Housing as a Foundation

There is a clear need for all levels of government to engage in jointly creating a comprehensive housing and support strategy for individuals with SAMI. The different roles/functions to be played by each level of government and goals for the strategy must be clearly articulated. The overall evidence clearly shows that housing and support services are best administered locally (Thornicroft & Tansella, 2004). However, senior levels of government must fund and create the capacity to design, implement and evaluate new and existing interventions. An increase in the supply of **affordable housing** will be a key strategy in addressing homelessness among people with SAMI. New construction is needed to increase the availability of rental stock, as well as the provision of **rental subsidies** to increase access to existing rental accommodation.

Research supports a balanced approach to supporting people with SAMI, including both community- and hospital-based services. Communities with few resources may focus on improving primary care, with specialist back-up. Communities with moderate resources may additionally provide out-patient clinics, community mental health teams (CMHTs), acute care, community residential care, and supported employment and job training. In addition, high-resource areas may provide more specialized services such as specialised out-patient clinics and CMHTs, ACT teams, early intervention teams, alternatives to acute in-patient care, alternative types of community residential care and alternative occupation and rehabilitation (Thornicroft & Tansella, 2004).

Although the number of studies on supported housing for people with SAMI is small and the results vary, it is clear that housing with supports *in any form* is a powerful intervention that improves the housing stability of individuals with SAMI. **Housing with support has been clearly shown to increase housing**

stability, decrease homelessness, and decrease the frequency and duration of hospitalization.

Individuals with SAMI can and do live in the community with supports and the majority can remain in supported housing for long periods of time. Thus, the trend is away from institutionalization and toward maximal integration/social re-integration (see Table 11 for the recommended mix of housing and support options for people with SAMI, and Table 12 for a summary of essential service components). Best practices in housing and support for people with SAMI advocate the following key elements:

- Assistance in locating and maintaining housing, including supports for landlords;
- Various types of supported housing dispersed widely in the community;
- Flexible, individualized supports which vary in type/intensity, and are not tied to particular residential settings but are available regardless of whether the client moves or is hospitalized;
- Consumer choice; and
- No restrictions on the length of time a client can remain in housing.

The research provides few answers to date regarding the specific features of supported housing that affect individual outcomes or the extent to which supported housing is more effective than other forms of housing. We do know that **housing with supports makes a difference over no housing, affordability is key, and there is some suggestion that housing with more well-defined services (e.g., ACT) may be even more effective than other forms of housing with supports.** Guidelines and program standards need to be developed for the implementation of ACT in BC. The effectiveness, and ultimately costs of homeless services can be improved by matching the type of service to the consumer's level of psychiatric impairment and substance use. Furthermore, service providers need access to education/skills development and other forms of psychosocial rehabilitation to help them respond to the varied, unique and challenging needs of this population.

Table 11: . Recommended Housing and Support Options for Individuals with SAMI

<i>Residential Care Models</i>	<i>Traditional Supported Housing Models</i>	<i>Alternative Models</i>
<i>Licensed Residential Care Facilities (fully or partially staffed)</i>	Satellite Apartments (e.g., Supported Independent Living Program, SILP)	Housing First
<i>Family Care Homes</i>	Scattered-site Apartments	Low Barrier Housing
	Block Apartments	<i>BC Housing Health Services Program</i>
	<i>Congregate Housing</i>	Enhanced Supported Independent Living Program (Super-SILP)
	Group Homes	Aboriginal Supported Housing Units

Note. Options in grey italics should be *less* emphasized for the SAMI population.

4.14.2. Establish Prevention Strategies and Rapid Response Capacity

It is imperative to develop the capacity to respond to housing crises before people become homeless and, if they do become homeless, quickly return them to stable housing. Successful prevention/rapid response

approaches involve (a) community emergency homelessness prevention programs (i.e., rent/mortgage/utility assistance, employment and/or benefit services management, landlord/lender intervention, eviction prevention), (b) shortening the time people spend homeless (i.e., shelter/ transitional housing system) and (c) rapid re-housing (i.e., housing search/placement services).

There is a need for more research into what aspects of housing and supports make the most difference and for whom. In particular, what housing and support factors influence an individual's integration into the community, a major goal of mental health policy and housing (Wong & Solomon, 2002)? Similarly, we need to know more about the individuals who do not succeed in housing and the interventions needed to improve their chances. Those who do not fare as well in supported housing tend to be younger with relatively more impairments, particularly co-occurring substance use and/or developmental disabilities. The Ministry of Children and Families has established a Supported Independent Living Program (SILP) especially for youth which has been working well. There is preliminary evidence to suggest that low demand housing, such as the Housing First approach and low barrier housing, can reach the hard-to-house, however, far more research is needed to strengthen the evidence base and increase its usefulness to providers who struggle with how to best meet the needs of people with SAMI.

Clearly, there is more we can learn about what features of supported/supportive housing are most cost-effective and desired by individuals, and about the specific approaches that may be needed by those who have not fared well in community housing. Yet, **the evidence is overwhelming that individuals with SAMI can live successfully in a wide range of supported housing approaches. The scarcity of housing, coupled with these findings, suggests that providers should look to maximize the available housing stock, regardless of some of the specific physical features of the housing.** However, given that supported housing may be a less expensive alternative (at least when start up costs are considered), and that the principles and values of supported housing are most consistent with the preferences of consumers, government and health authorities should develop their housing portfolio in a manner that is aligned to the philosophy and spirit of supported housing.

Table 12: Essential Service System Components

Evidence-Based and Promising Practices
<p>Outreach and Engagement</p> <ul style="list-style-type: none"> ➤ Meets immediate and basic needs for food, clothing, and shelter. ➤ Non-threatening, flexible approach to engage and connect people to needed services.
<p>Housing with Appropriate Supports</p> <ul style="list-style-type: none"> ➤ Includes a range of options from transitional and Low Barrier Housing to permanent supported housing (see Table 11). ➤ Combines affordable, independent housing with flexible, supportive services.
<p>Multidisciplinary Treatment Teams/Intensive Case Management</p> <ul style="list-style-type: none"> ➤ Provides or arranges for an individual's clinical, housing, and other rehabilitation needs. ➤ Features low case loads (10-15:1) and 24-hr service availability.
<p>Integrated Treatment for Concurrent Disorders</p> <ul style="list-style-type: none"> ➤ Features coordinated clinical treatment of both mental illness and substance use disorders. ➤ Reduces alcohol and drug use, homelessness, and the severity of mental health problems.

Evidence-Based and Promising Practices

Motivational Interventions

- Helps prepare individuals for active treatment; incorporates relapse prevention strategies.
- Must be matched to an individual's stage of recovery.

Modified Therapeutic Communities

- Views the community as the therapeutic method for recovery from substance abuse.
- Have been successfully adapted for people with SAMI who are homeless.

Self-Help Programs

- Often includes the 12-step method, with a focus on personal responsibility.
- May provide an important source of support for homeless people.

Involvement of Consumers and Recovering Persons

- Can serve as positive role models, help reduce stigma, and make good team members.
- Should be actively involved in the planning and delivery of services.

Prevention Services

- Reduces risk factors and enhance protective factors.
- Includes supportive services in housing, discharge planning, and additional support during transition periods.

Other Essential Services

Primary Health Care

- Includes outreach and case management to provide access to a range of comprehensive health services.

Mental Health and Substance Abuse Treatment

- Provides access to a full range of outpatient and inpatient services (eg., counseling, detox, self-help, peer support)

Psychosocial Rehabilitation

- Helps individuals recover functioning and integrate into their communities by addressing 4 key components: Employment, Education, Basic Living Skills and Leisure, which are essential services to prevent isolation and loneliness.

Income Support and Entitlement Assistance

- Outreach and case management to help people obtain, maintain, and manage their benefits.

Employment, Education, and Training

- Requires assessment, case management, housing, support services, job training and placement, and follow-up.

Services for Marginalized Groups within the SAMI Population

- Programs focusing on the specific needs of women and Aboriginal peoples, eg., trauma, parenting, domestic violence, etc.

Low Barrier Services

- Helps engage individuals who initially are unwilling or unable to engage in more formal treatment.

Evidence-Based and Promising Practices**Crisis Care**

- Responds quickly with services needed to avoid hospitalization and homelessness.

Family Self-Help/Advocacy

- Helps families cope with family members' illnesses and addictions to prevent homelessness.

Cultural Competence

- Accepts differences, recognizes strengths, and respects choices through culturally adaptive services.

Criminal Justice System Initiatives

- Features diversion, treatment, and re-entry strategies to help people remain in or re-enter the community.

5. Public Sector Costs of a Housing and Support Intervention for Adults with SAMI in British Columbia

5.1. Key Messages

This section of the report examines the costs of implementing the recommended mix of housing and support services for adults with SAMI who are absolutely homeless, who are 'at imminent risk' of homelessness, and the combined population of those who are absolutely homeless and those who are 'at imminent risk' of homelessness. We recognize that those who are absolutely homeless are in most immediate need, so this sub-population was examined separately. For each population, the cost of new capital construction is estimated along with housing and support operational costs (net of emergency shelter costs), cost/cost avoidance to the public sector (health and corrections services), and the cost of remaining with the status quo (currently available housing and support plus health and correctional institution costs).

For the **absolutely homeless** population, the net cost of implementing recommended housing and support is \$178.5 million per year. This consists of net *operational residential and housing costs of \$148.1 million per year* and *annual equivalent capital costs of \$30.5 million*. When the costs of homelessness to the health and corrections systems are subtracted from net housing and support operational costs, the cost avoidance is \$32.8 million per year or \$2,792 per year per person. The net cost of remaining with the status quo for this population is \$694.5 million per year.

For the **'at imminent risk'** population, the net cost of implementing the recommended housing and support services is \$136.7 million per year. This consists of net *operational residential and housing costs of \$118.5 million per year* and *annual equivalent capital costs of \$18.2 million per year*. When the costs of homelessness to the health system and correctional institutions are subtracted from net housing and support operational costs, the cost is \$10.6 million per year or \$1,515 per year per person. The net cost of remaining with the status quo is \$384.3 million per year.

On average, a homeless person uses approximately \$54,833 per year in health, corrections, and social services; in supported housing, service utilization drops to \$36,848 per person per year. Thus, supported housing results in service utilization net cost avoidance of \$17,985 per person per year.

After subtracting this cost avoidance from the annual equivalent cost of the capital investment, the net 'cost avoidance' of providing more appropriate housing for adults with SAMI is around \$32.8 million per year for the absolutely homeless (\$2,792 per year per person) and costs approximately \$10.6 million per year for the 'at imminent risk' population (\$1,515 per year per person). When the homeless and 'at imminent risk' are combined, implementing recommended housing and support results in an overall 'cost avoidance' of \$22.2 million per year (\$1,183 per year per person). This cost avoidance is likely an underestimate as there are many costs to the community and larger systems that are difficult to quantify.

5.2. Introduction

Given the scarcity of economic resources for social programming in Canada, all social interventions should involve an economic evaluation. A high-quality economic evaluation allows decision-makers to evaluate the

opportunity cost of offering one service over another. The intervention in question here – providing a better configuration of housing and residential support for adults who are homeless with SAMI in BC – is at first glance a worthwhile venture. However, examination of economic evidence from similar studies allows further exploration of whether a program of this nature will be cost-beneficial at the provincial level.

This section of the report estimates the expected impact on public sector costs of a proposal to improve housing and residential services to homeless adults with SAMI in BC. The report was prepared with limited resources and in a time frame that did not allow for primary data collection. We have therefore relied heavily upon readily available sources of information. Furthermore, the costing exercise took place in parallel with related and necessary projects examining the extent of unmet need (Section 3) and best practices in housing policy (Section 4) for homeless people with SAMI. Thus, we have constructed the costing model based on information about the current configuration of housing/support and a consensus view of the *ideal* configuration of housing and support. We have used mid-point population estimates (and have completed a sensitivity analysis of high and low population estimates; see Appendix G). The model was designed so that revised estimates of the net effects on costs can be easily derived once there is new information on the scale of the problem or the optimal mix of services or the effectiveness of new housing/support provision.

This section of the report begins with a brief overview of current literature regarding costing analyses of public housing projects in Canada and the United States. Then, methods used to create the cost impact model are explained and the intervention is described. The data used in the model are presented, referring to those studies used to populate our model. The data is laid out in three sections: (1) capital construction costs; (2) costs of providing housing and residential support; and, (3) costs of other social services including health care, criminal justice (corrections institutions), and social services that are known to be affected by housing tenure. The results of a base case model are presented and a discussion of the implications of these results follows. The report concludes by reporting the results of an extensive sensitivity analysis and discussing the biases and limitations of the model.

5.3. Background

The literature suggests that providing better housing and support to people with SAMI may result in an overall cost avoidance of public service use. However, few studies offer evidence for resource use before and after changes in housing provision for people with SAMI. Berry et al. (2003) completed a systematic review of cost-effectiveness and cost-benefit studies for the Australian Housing and Urban Research Institute (AHURI). The research team scanned all major research databases and identified 13 studies across the United States, Canada, Australia, and the United Kingdom that addressed the costs of housing interventions. The authors concluded that the provision of secure housing and appropriate residential support tends to avoid the costs of support services such as emergency shelters, hospital inpatient facilities, and correctional facilities. In most of the studies reviewed, the avoidance of costs of ancillary services almost offset the increased costs of housing and residential support.

Perhaps the most extensive evaluation of supported housing for people with SAMI was Culhane and colleagues' (2002) evaluation of the New York-New York (NY-NY) Agreement to House the Homeless Mentally Ill. The NY-NY intervention provided supported housing to the most chronic, difficult-to-house, homeless population with a goal of reducing demands on the emergency shelter system and psychiatric care. Program participants provided identifying information to allow the researchers to comb public records of service use in order to present an objective picture of their service use patterns. In a pre-post study

design, Culhane et al. reported the service use of program participants two years prior and two years post intervention. Service use was categorized under the following categories: shelter services, state psychiatric hospitals, city hospitals, Medicaid (inpatient and outpatient), Veterans Affairs Hospital, and correctional facility (city and state). Using a model of cost avoidance, Culhane et al. reported that the intervention was associated with substantial reductions in homelessness and a substantial (approximately 40%) reduction in costs to government bodies.

Palermo et al. (2006) presented a costing study of an investment in supported housing in Halifax that followed a similar approach to the one used here and presented an *ex ante* cost model of a simple housing intervention for homeless people. They used effectiveness data from Culhane et al. (2002) and found significant cost avoidance when a population of homeless people moved from shelters or the street to either traditional supported housing or 'Housing First' permanent supported housing.

A report prepared for the Government of British Columbia (Eberle et al., 2001) presented a preliminary analysis of the costs of providing a better configuration of housing to homeless people and the resultant impact on costs to the health care, justice, and social service systems. Using a cohort of 15 people, service use was tracked and costs associated with that use estimated, leading to a pre-post intervention costing exercise. The study concluded that homeless people used 33% more public sector services than those people that were adequately housed. However, the study did not focus specifically on people with SAMI, nor was the population surveyed statistically representative of the homeless population.

Another study that provided comparison data for a housing intervention was found in a draft report of the changes in residents' use of public services after entry to supportive housing in California (Corporation for Supportive Housing, 2004). This report focused on the change in service use in two California counties (San Francisco and Alameda) that were part of an intervention to provide supportive housing to people who were homeless for eight months or more. Like the NY-NY study, it used a pre-post design and similarly found a reduction in the use and costs of most public services. Martinez and Burt (2006) further reported on this intervention. They found that after housing, participants had a reduced likelihood of being admitted to hospital, a reduced average number of hospital visits per person, and a reduced total number of hospital admissions per person.

The above studies present broad information about the overall effect on public services costs of an intervention to house homeless people with SAMI. The remaining studies discussed here focus on the effect on health care usage after such an intervention.

Rosenheck et al. (2003) evaluated the effects of providing rent subsidies and case management to tenants with severe mental illness. The intervention reduced the absolute number of days homeless but did not reduce health service costs or improve quality of life. In comparison to other studies, the success of this intervention (i.e. rent subsidies) relied on a secure private rental market that does not increase the rent by an amount equivalent to the subsidy.

Kessell et al. (2006) compared health service use by people with SAMI enrolled in supportive housing with those who were eligible but not enrolled because of space constraints. Both groups were high users of services. Some aspects of health service use fell after enrolment (inpatient admissions, emergency department visits, and use of 24-hour Community Mental Health Services). Ultimately, though, the reduction was the same in both groups. (Note that those who were refused entry because of space constraints may have received housing elsewhere).

Gulcur et al. (2003) reported on the Housing First program, which provides immediate, unconditional access to independent housing. The study found that housing retention rates improved while hospital use decreased, especially among those recruited who were initially recruited from hospitals (i.e. high users benefit the most). Participants recruited off the streets were low users of hospital services and so the scope of benefit was low. Consequently, the biggest reduction in costs was seen in the 'hospital' group.

Gilmer et al. (2003) explored the amount of Medicaid health services usage by people with schizophrenia grouped by housing type: homeless, assisted housing, or independently housed. Those in assisted living situations used significantly less hospital care and more outpatient care than both other groups.

Vancouver Coastal Health (2002, 2006) reported the results of two small studies completed in British Columbia. The first study (2002) investigated the impact of supported housing on a small sample of tenants and found an overall reduction in the length of hospital stay, stemming from a decrease in mental health related admissions and a small increase in physical health related admission. The second study (2006) focused on individuals who entered mental health supported housing. The study reported a reduction in emergency room visits, a reduction in average length of stay in hospital, and a reduction in hospital bed days, including a reduction in both physical and mental health related admissions.

In summary, the available literature suggests that our source of effectiveness information (Culhane *et al* 2002) fits well within the global evidence for supported housing interventions for people with SAMI. Overall, the literature is largely consistent in predicting the results of moving a person with SAMI from a state of homelessness to permanent supported housing: their housing and residential support costs will increase, their patterns of health care use will shift from inpatient to outpatient (more appropriate care) and decrease, and their criminal justice-related costs will decrease. Most studies suggest that the costs avoidance from these shifts in service use *approach* the level at which it will cover the capital costs of the intervention, while some do result in overall cost offsets.

5.4. Methods

A computerized model was used to calculate the impact on public sector costs of improving the current provision of housing and residential support for homeless adults with SAMI. We attempt to measure costs that span across four provincial ministries: housing, health, public safety, and income assistance. The model draws on existing literature to present an *ex ante* estimate of the net costs (or cost avoidance) of a recommended housing and support intervention. In essence, we examine the expected change in public sector costs for the four specified agencies after the introduction of an ideal mix of housing and residential support services.

The first step in modeling was to describe the type of intervention. We describe the pre and post housing types and configurations and the services to be included in the model. As well, the model required a numerical estimate of the target population. Given high and low estimates of the population, we elected to follow convention and use mid-points of these estimates. This information is presented in detail in the next section. With these data, we could better analyze the information needed to calculate a cost per person pre and post intervention. This enabled us to calculate the net effect on public sector costs of a change from the pre intervention housing configuration to the post intervention housing configuration.

Information about the nature of the intervention allowed us to separate the types of net effects on costs. Specifically, we separated the model into capital costs, costs of providing housing and residential support services, and the costs of other services including health care, corrections, and social services. To

determine the net effect on each of these service areas, we needed per unit cost information and an estimate of the change in service use before and after the implementation of housing and support.

The capital-related information is grouped by housing type (e.g. residential care, supported housing, low barrier housing – see the intervention description in Table 14 for a full list). For each housing type, we gathered capital construction costs per unit. Given the nature of our intervention – movement from a pre intervention state (i.e. current housing configuration) to a post intervention state (i.e. ‘ideal’ housing configuration) – we calculated the cost to construct the required housing units to meet the post intervention ‘ideal’ housing configuration (with some informed assumptions about the current housing situation of the target population). We then estimated the cost of constructing the housing needed for this intervention and calculated an annualized capital cost (using an amortization rate of 3% over 50 years).

Information on residential support services is grouped by housing type and unit costs were calculated on a per person per day basis (using per-diem rates). Again, given the nature of our intervention – movement from a pre to a post intervention state – we calculated the pre and post intervention costs of housing and residential support services. We then calculated the intervention’s net effect on housing and residential services costs.

The types of other services to be included in the net costs were determined from the literature. Once a complete list of services was identified (see Table 19), we gathered information about the unit costs per person and the expected change in service usage per person. We then calculated the intervention’s net effects on all other service costs.

Effectiveness data (i.e. the basis for estimating the impact that the new configuration of housing would have on the use of health care, criminal justice, and social services) was taken mainly from Culhane et al’s (2002), NY-NY Agreement to House the Homeless Mentally ill, with additional information taken where appropriate from the studies reviewed in the previous section.

Finally, using the capital costs and the effects on the costs of housing and residential services and other services, we calculated the net expected impact of the intervention on the public sector costs.

In populating our model with costing and service usage change information, we have worked to a hierarchy, giving first priority to evidence from Canadian sources (first the peer-reviewed literature followed by reports), and lower priority to evidence from the USA and elsewhere. No single study was able to provide a complete picture of effectiveness ‘pre and post’ intervention. However, we were reassured to see that when there were comparable data from more than one source (for example on the impact that improvements in housing provision have on the use of hospital beds), the results were largely consistent. The next section presents a more thorough description of the intervention modeled.

5.5. Intervention

As stated above, the first step in the modeling process involved identifying and defining the intervention. We turned to housing experts and providers in British Columbia and to the available research evidence. We were provided with information defining the target population (see Table 13 and Section 3 of this report). Similarly, we relied upon expert information to identify the current housing configuration and the ‘ideal’ housing mix (post intervention). We used this information as a base for modeling the intervention.

Table 13 presents the total SAMI population in need of housing and support in BC. There are three sub-groups within our population: specifically, (1) adults with SAMI who currently reside in supported housing but who *would* otherwise *potentially* be at-risk of homelessness, (2) adults with SAMI who are currently

housed elsewhere (but not in supported housing) and are at imminent risk of homelessness, and (3) those who are currently absolutely homeless. In the pre intervention costing of our model, we assume that the public sector does not incur costs related to people that are at imminent risk of homelessness and that those who are absolutely homeless are split between emergency shelters and the streets (also not costing the public sector). For our analysis, we used the mid-point (as per convention) and did a sensitivity analysis of the low and high estimates of both the inadequately housed and inadequately supported (at-risk) and the absolutely homeless populations (see Appendix G).

Table 13: Total SAMI Population in Need of Housing and Target Population

	Low	Mid	High
Inadequately Housed and Inadequately Supported (At-Risk)	9,500	14,750	20,000
Absolutely Homeless	8,000	11,750	15,500
Total SAMI Population	17,500	26,500	35,500
Current Supported Housing Stock	- 7,741	- 7,741	- 7,741
Intervention Population	9,759	18,759	27,759

The intervention here assumes a change from a pre to post intervention state of housing and support *for adults with SAMI*. Information about the pre intervention (current) units were provided by government and health authority representatives in British Columbia. A consensus view on the ‘ideal’ configuration (post intervention) was established by health authority and government representatives, along with housing and support providers and academic experts. Changes were based on the academic and grey literature (e.g., recommendations to move away from institutional forms of care towards more independent, supported housing). Table 14 presents this information in percentages of the target population expected to be housed in that type of housing.

Table 14: Housing Configuration – Current (pre) and ‘Ideal’ (post)¹

	Pre Intervention	Post Intervention
Residential Care	22%	7%
Licensed Residential Care	20%	6%
Family Care Homes	2%	1%
Independent Supported Housing		
Low Barrier Housing	10%	15%
High-support		5%
Low-support		10%
Supported Housing	55%	70%
Transitional Crisis		3%
BC Housing Health Services	13%	5%

¹ It was recommended that the ‘ideal’ housing configuration consist of 4% Licensed Residential Care beds and 7% BC Housing Health Services beds. However, this would result in fewer LRC beds than are currently available. In an effort to account for what is currently available (as it is unrealistic to expect these beds not to be used) we maintained the current number of LRC beds, which works out to be 6% of the ‘ideal’ configuration, and subtracted the 2% differential from the BC Housing Health Services beds.

The model presented here calculates the net effects on public sector costs of moving the target population from the pre intervention housing and service use configuration to a post intervention state as shown above.

5.6. Data

This section presents the data used in our model and identifies the sources used.

5.6.1. Capital – Needs and Costs

There will be significant up-front capital costs to provide housing for the target population as per the intervention outlined previously. As outlined in Table 13, the identified total population includes individuals with SAMI who reside in supported housing units, who are assumed to be at imminent risk of homelessness, as well as those who are absolutely homeless. There is a current stock of housing of 7,741 units and, according to the Ministry of Health, these units are assumed to be in full use. As the figures in Table 13 include those people currently living in the existing stock of housing, the ‘at imminent risk’ target population used for calculations was reduced from 14,750 to 7,009 and the total target population from 26,500 to 18,759. This is the target population for intervention for which the remainder of this costing exercise will focus.

It is assumed that both the ‘at imminent risk’ and absolutely homeless groups require capital expenditure to achieve minimum housing standards. We recognize that the ‘at imminent risk’ group may not require full construction costs, however, the costs of housing and support upgrades are difficult to estimate due to wide variation across type of housing, type of upgrade, and geographical region. Moreover, housing upgrades are often expensive; while they may not be as expensive as new construction, it may be used as an upper estimate. Finally, the study from which the changes to service use pre and post housing intervention (Culhane et al., 2001) assumed secure housing tenure and support. We cannot assume that improving solely the quality of housing (e.g., via upgrades) would result in the same results. Therefore, we have assumed equal capital costs across both groups, recognizing that our estimate may be somewhat inflated. A more conservative estimate would include only the absolutely homeless population and so we present a parallel model of cost estimates focused solely on this population. Table 15 presents the number of units needed to meet the ideal post intervention configuration for the combined ‘at imminent risk’ and absolutely homeless population (Table 15a) and for the absolutely homeless and ‘at imminent risk’ populations separately (Table 15b).

Table 15a: Housing Units - Distribution in Percentage and Units for the combined ‘At Imminent Risk’ and Absolutely Homeless Populations

	Pre Intervention		Post Intervention		Needed
Residential Care					
Licensed Residential Care	1,492	19%	1,492	6%	
Family Care Homes	174	2%	368	1%	194
Independent Supported Housing					
Low Barrier Housing					
High-support	256	3%	1,325	5%	1,069
Low-support	520	7%	2,655	10%	2,135
Supported Housing	4,270	55%	18,550	70%	14,280
Transitional Crisis			790	3%	790
BC Housing Health Services	1,029	13%	1,320	5%	291
	<u>7,741</u>		<u>26,500</u>		<u>18,759</u>

Table 15b: Housing Units - Distribution of Units needed for Absolutely Homeless and 'At Imminent Risk' Populations Separately

	Units for Homeless People	Units for People 'At Risk'	Total
Residential Care			
Licensed Residential Care	-	-	-
Family Care Homes	122	72	194
Independent Supported Housing			
Low Barrier Housing			
High-support	670	399	1,069
Low-support	1,337	798	2,135
Supported Housing	8,945	5,335	14,280
Transitional Crisis	495	295	790
BC Housing Health Services	182	109	291
	11,750	7,009	18,759

The post intervention scenario is based on the assumption that the target population will require housing and that it will fit the ideal housing and support mix specified in Table 14. We assume that there will not be any homeless people with SAMI utilizing the emergency shelter system in BC. In the case of targetting only the absolutely homeless, we assume that pre intervention (currently available) housing is already in use and the housing needed must all be constructed. Our primary source for capital costs is Pomeroy (2005), which presented city-specific capital costs for providing a variety of types of public housing that closely matched the types of housing identified in BC. It is important to note that capital costs for transitional housing are similar to those for supported housing; the main discrepancy is the high rate of turnover in transitional housing. With regard to the at-risk population alone, we have subtracted the 7,741 available stock of supported housing from the overall demand, leaving a need for 7,009 additional units for the 'at imminent risk' (ie., those people residing in substandard housing).

Table 16(a/b/c) presents the capital costs per unit and the total costs to construct the number of units needed (as identified in the intervention described above) for the absolutely homeless population alone (Table 16a), for the 'at imminent risk' population alone (Table 16b), and for the combined populations combined (Table 16c). Furthermore, we calculate the annual equivalent cost of this capital investment by amortizing the total amount over 50 years using a 3% discount rate⁵. This gives us an estimate of the capital cost per year for the intervention that is more easily compared with recurrent revenue costs.

⁵ The discount rate (3%) is taken from the US Public Health Service on Cost-effectiveness in Health and Medicine (Gold, M.R., Siegal J.E., Russel, L.B. and Weinstein, M.C. 1996. Cost-effectiveness in health and medicine. Oxford University Press, New York). Rather than reflecting the CPI, it reflects what is called the shadow-price-of-capital approach, a rate that reflects society's willingness to collectively forgo consumption today in order to have greater consumption tomorrow. Since there is disagreement in the field of economics in general and health economics in particular, we conducted a sensitivity analysis to check the robustness of this assumption.

Table 16a: Capital Costs to Meet Post Intervention Public Housing Need for the Absolutely Homeless Population

	<u>Units Needed</u>	<u>Cost Per Unit</u>	<u>Total Cost to Construct Units Needed</u>	<u>Annual Equivalent Cost ²</u>
Residential Care				
Licensed Residential Care	-	-	-	-
Family Care Homes	122	- ²	-	-
Independent Supported Housing				
Low Barrier Housing				
High-support	670	\$61,201 ¹	\$41,005,000	\$1,593,680
Low-support	1,337	\$61,201 ¹	\$81,826,395	\$3,180,223
Supported Housing	8,945	\$69,999 ¹	\$626,108,367	\$24,334,011
Transitional Crisis	495	\$69,999 ¹	\$34,637,546	\$1,346,205
BC Housing Health Services	182	-	-	-
TOTAL	11,750		\$783,577,308	\$30,454,119

1 Source: Pomeroy, 2005
2 There are no capital costs with family care homes. The per diem rate includes a rental portion.
3 Capital costs are amortized over 50 years with a discount rate of 3%

Table 16b: Capital Costs to Meet Post Intervention Public Housing Need for the 'At Imminent Risk' Population

	<u>Units Needed</u>	<u>Cost Per Unit</u>	<u>Total Cost to Construct Units Needed</u>	<u>Annual Equivalent Cost ³</u>
Residential Care				
Licensed Residential Care	-	-	-	-
Family Care Homes	72	- ²	-	-
Independent Supported Housing				
Low Barrier Housing				
High-support	399	\$61,201 ¹	\$24,419,395	\$949,072
Low-support	798	\$61,201 ¹	\$48,838,791	\$1,898,144
Supported Housing	5,335	\$69,999 ¹	\$373,480,302	\$14,515,497
Transitional Crisis	295	\$69,999 ¹	\$20,661,664	\$803,026
BC Housing Health Services	109	-	-	-
TOTAL	7,009		\$467,400,152	\$18,165,738

1 Source: Pomeroy, 2005
2 There are no capital costs with family care homes. The per diem rate includes a rental portion.
3 Capital costs are amortized over 50 years with a discount rate of 3%

Table 16c: Capital Costs to Meet Post Intervention Public Housing Need for the Combined Population

	Units Needed	Cost Per Unit	Total Cost to Construct Units Needed	Annual Equivalent Cost ³
Residential Care				
Licensed Residential Care	-	-	-	-
Family Care Homes	194	- ²	-	-
Independent Supported Housing				
Low Barrier Housing				
High-support	1,069	\$61,201 ¹	\$65,424,395	\$2,542,751
Low-support	2,135	\$61,201 ¹	\$130,665,186	\$5,078,367
Supported Housing	14,280	\$69,999 ¹	\$999,588,669	\$38,849,508
Transitional Crisis	790	\$69,999 ¹	\$55,299,210	\$2,149,231
BC Housing Health Services	291	-	-	-
TOTAL	18,759		\$1,250,977,460	\$48,619,858

¹ Source: Pomeroy, 2005
² There are no capital costs with family care homes. The per diem rate includes a rental portion.
³ Capital costs are amortized over 50 years with a discount rate of 3%

5.6.2. Housing and Residential Services – Percentage Change in Usage and Costs

Following from the assumptions made for the current and ideal usage of housing and support, it is possible to calculate the percentage change in housing usage as presented in Table 17(a/b/c) below, again presenting the absolutely homeless alone (Table 17a), the 'at imminent risk' group alone (Table 17b), and the combined population (Table 17c). Recall that it has been assumed that the current stock of housing is in use, therefore, the remainder of those among the target population identified as 'at risk' (n=7,009) are assumed to be 'housed elsewhere' and will incur no housing and residential services cost in the pre intervention scenario. In the post intervention case, the 'at imminent risk' population that does not occupy current supported housing stock is distributed according to the ideal housing mix. Those among the target population who are identified as homeless are split between 'homeless' and 'emergency shelter' according to the pre intervention usage of the NY-NY program participants (Culhane et al., 2002) and similarly distributed according to ideal housing configurations post intervention.

Table 17a: Housing Places Used by Target Cohort - Pre & Post Intervention for the Absolutely Homeless

	<u>Pre Intervention</u>	<u>Post Intervention</u>
Residential Care		
Licensed Residential Care		-
Family Care Homes		122
Independent Supported Housing		
Low Barrier Housing - High support		670
Low Barrier Housing - Low support		1,337
Supported Housing - Satellite Apartments		1,789
Supported Housing - Block Apartments		1,789
Supported Housing - Congregate Housing		1,789
Supported Housing - Group Homes		1,789
Supported Housing - Housing First		1,789
Transitional Crisis		495
BC Housing Health Services		182
Emergency shelter	2,205 ¹	
Housed elsewhere		
Homeless	<u>9,545 ¹</u>	
Total Population	11,750	11,750

¹ Of the homeless population, split between emergency shelter and homeless according to pre intervention data in Culhane 2002.

Table 17b: Housing Places Used by Target Cohort - Pre & Post Intervention for the 'At Imminent Risk' Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>
Residential Care		
Licensed Residential Care		-
Family Care Homes		72
Independent Supported Housing		
Low Barrier Housing - High support		399
Low Barrier Housing - Low support		798
Supported Housing - Satellite Apartments		1,067
Supported Housing - Block Apartments		1,067
Supported Housing - Congregate Housing		1,067
Supported Housing - Group Homes		1,067
Supported Housing - Housing First		1,067
Transitional Crisis		295
BC Housing Health Services		109
Emergency shelter		
Housed elsewhere	7,009	
Homeless		
Total Population	7,009	7,009

Table 17c: Housing Places Used by Target Cohort - Pre & Post Intervention for the Combined Populations

	<u>Pre Intervention</u>	<u>Post Intervention</u>
Residential Care		
Licensed Residential Care		-
Family Care Homes		194
Independent Supported Housing		
Low Barrier Housing - High support		1,069
Low Barrier Housing - Low support		2,135
Supported Housing - Satellite Apartments		2,856
Supported Housing - Block Apartments		2,856
Supported Housing - Congregate Housing		2,856
Supported Housing - Group Homes		2,856
Supported Housing - Housing First		2,856
Transitional Crisis		790
BC Housing Health Services		291
Emergency shelter	2,205 ¹	
Housed elsewhere	7,009 ¹	
Homeless	<u>9,545 ¹</u>	
Total Population	18,759	18,759
¹ Of the homeless population, split between emergency shelter and homeless according to pre intervention data in Culhane 2002.		

We identified unit cost data for the types of housing pre and post intervention from a variety of sources. Specifically, we used information from the BC Ministries of Health and Housing, the Triage Emergency Aid Society, a Government of BC report by Eberle et al. (2001), and Pathways to Housing (2005). Note that most of the 'costs' reported here are actually per diem reimbursement rates, meaning that regardless of the source of the cost data, all are actually incurred by the Ministry responsible for housing. These costs reflect financial costs rather than economic costs and are reported in Table 18. We have subtracted \$15 per day from the supported housing costs to reflect the rent subsidy to avoid overcounting of the capital costs of housing. The remainder, as well as all other cost figures, are assumed to reflect the administration and support costs associated with providing housing, such as regular case management.

Not included in these estimates are ACT costs, although this type of case management is recommended in this report. A meta-analysis of the effects of ACT produced three studies of the changes in hospitalization; however, the results of the studies were mixed and the meta-analysis showed negligible change in hospital usage (Coldwell and Bender, 2007). Thus, although ACT is known to be more expensive and expected to further reduce the usage of other services, it is not included in this analysis. For comparison, ACT is reported to cost \$54.92 per diem (source: BC Ministry of Health).

Table 18: Cost of Public Housing in British Columbia, Per Person

	<u>Cost Per Day</u>	<u>Cost Per Year</u>	
Residential Care			
Licensed Residential Care	\$123.00	\$44,895	¹
Family Care Homes	\$57.50	\$20,988	¹
Independent Supported Housing			
Low Barrier Housing - High support	\$60.00	\$21,900	¹
Low Barrier Housing - Low support	\$21.00	\$7,665	³
Supported Housing - Satellite Apartments	\$47.50	\$17,338	¹
Supported Housing - Block Apartments	\$47.50	\$17,338	¹
Supported Housing - Congregate Housing	\$47.50	\$17,338	¹
Supported Housing - Group Homes	\$47.50	\$17,338	¹
Supported Housing - Housing First	\$59.49	\$21,712	⁵
Transitional Crisis	\$42.50	\$15,513	²
BC Housing Health Services	\$9.50	\$3,469	¹
Emergency shelter	\$62.89	\$22,954	⁴

¹ Source: Ministry of Health, British Columbia
² Source: Lookout Emergency Aid Society
³ Source: Triage Emergency Aid Society
⁴ Source: Eberle, 2001
⁵ Source: Pathways to Housing, 2005

The costs of housing along with the pre and post housing configuration used by the target population were used to calculate the pre and post intervention housing costs and the resultant cost outcome per year for the total cohort.

5.6.3. Other Services - Percentage Change in Service Usage and Costs

According to the literature, we identified other types of service provision likely to be affected by a change in the configuration of housing and residential support and their unit costs. Eberle et al. (2001) was the primary source used to list these other types of services because of its similar focus, comparable target population and identical location, though other examples of service use within each major category were added from other studies as new evidence was uncovered.

Table 19 presents the change in usage of public services (other than housing and residential services) pre and post intervention. As stated previously, there are few evaluations of changes in housing provision for people with SAMI that present before and after service use data. As one can see by comparing the categories of service use reported in Table 19 and Table 20 below, we do not have estimates of the change in utilization for every component of the services examined. In the baseline estimate presented here, we have extrapolated from the information that is available from the published evidence in order to account for the gaps in our effectiveness data. Note that the blocked out sections in the table denote aspects of service use for which we have no information but for which we expect change in usage.

Table 19: Use of Other Public Services, Pre and Post Intervention

	<u>Unit of Analysis</u>	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Percentage Change</u>
Health Care Services				
Hospital Care				
	days	58.45	37.35	-36.1%¹
General Admission	days	14.61	9.34	-36.1% ²
Intensive care nursing unit	days	14.61	9.34	-36.1% ²
Psychiatric Admission	days	14.61	9.34	-36.1% ²
Psychiatric Nursing Unit	days	14.61	9.34	-36.1% ²
Laboratory	visit			
Ambulance	trip			
Outpatient Care				
	days	31.1	54.7	75.9%¹
Outpatient Clinic	visit	3.89	6.84	75.9% ³
Community Mental Health Services	visit	3.89	6.84	75.9% ³
Counselor/psychologist	visit	3.89	6.84	75.9% ³
Home care nurse	visit	3.89	6.84	75.9% ³
Social worker	visit	3.89	6.84	75.9% ³
Psychiatric Nurse	visit	3.89	6.84	75.9% ³
Physiotherapist	visit	3.89	6.84	75.9% ³
Occupational or recreation therapist	visit	3.89	6.84	75.9% ³
Prescription Drugs/Pharmacies	prescription			
Criminal Justice Services				
Correctional Institution	days	9.65	3.8	-60.6%¹
Provincial	days	5.00	1.05	-79.0% ¹
Correctional facility/holding cell	days	4.65	2.75	-40.9% ¹
Probation Officer	contact			
Police involvement	contact			
Courts	trial			
Lawyer	case			
Social Services				
BC Benefits (income support)	monthly			
Provincial addiction treatment				
Detoxification centre	days			
Recovery centre	days			
Child protection services	days			
Community Support worker	visit			
Depot injection clinic	visit			
Suicide/crisis services	contact			
Educational programs/skills training	program			
Group/family therapy	visit/client			

¹ Source: Culhane 2002

² Hospital use from Culhane 2002 divided across all types of hospitalization

³ Outpatient healthcare use from Culhane 2002 divided across all types of outpatient care

The effectiveness data presented in Table 19 is from the NY-NY study (Culhane *et al*, 2002). The NY-NY data reflect experience in the two years before the intervention and the two years afterwards. The NY-NY study presented useful information that could be best used by grouping into four broad categories: inpatient hospital use, outpatient health care use, correctional institution – state (province), and correctional institute – city. With the data categorized, we extrapolated to fit our services. Thus: (i) the reduction in inpatient hospital use observed in the NY-NY study was applied to other forms of inpatient care; and (ii) the increase in outpatient services was applied to other forms of community-based health and social care. For example, the days of hospital usage pre intervention reported in the NY-NY study (58.45/year) were spread across four types of hospital use (general admission, intensive care nursing unit, psychiatric admission, psychiatric

nursing unit) suggesting an average usage of 14.61 days for each type of hospital use. Given the range in costs across each type of service that could be grouped under the broad categories as discussed in Culhane et al. (2002), this allocation ensures equal weighting to each service cost. The implications of these assumptions for our final estimate of net cost (saving) are explored in the sensitivity analysis.

Table 20 displays the costing data found in the literature (the categories of service use by agency and the associated unit costs). Eberle et al. (2001) was the primary source of cost information and Kopala et al. (2006) also served as a useful reference for the costs of these social services. The costs presented here were converted to Canadian 2006 dollars using the Bank of Canada's CPI. Each represents the cost per person of one unit (as expressed in the table) of the item. Where the source data presented a high and low estimate of the cost, a mid-point was used. As with Table 19, aspects in which we have no information are denoted here by blocks.

Table 20: Cost of Public Service Use in British Columbia, Per Person

	<u>Unit of Analysis</u>	<u>Public Service Cost</u>
Health Care Services		
<i>Hospital Care</i>		
General Admission	days	\$601.85 ²
Intensive care nursing unit	days	\$2,024.34 ²
Psychiatric Admission	days	\$446.69 ³
Psychiatric Nursing Unit	days	\$423.73 ²
Laboratory	visit	\$19.09 ²
Ambulance	trip	\$396.00 ⁴
<i>Outpatient Care</i>		
Outpatient Clinic	days	\$27.90 ⁵
Community Mental Health Services	contact	\$139.93 ¹
Counselor/psychologist	visit	\$76.37 ²
Home care nurse	visit	\$44.61 ²
Social worker	visit	\$52.80 ²
Psychiatric Nurse	visit	\$53.68 ²
Physiotherapist	visit	\$49.10 ²
Occupational or recreation therapist	visit	\$87.29 ²
Prescription Drugs/Pharmacies	prescription	
Criminal Justice Services		
<i>Correctional Institution</i>		
Provincial	days	\$223.01 ²
Correctional facility/holding cell	days	\$119.77 ²
Probation Officer	contact	\$23.19 ²
Police involvement	contact	\$81.83 ²
Lawyer	case	\$651.36 ²
Social Services		
BC Benefits (income support)	monthly	
<i>Provincial addiction treatment</i>		
Detoxification centre	days	\$147.75 ²
Recovery centre	days	\$58.47 ²
Child protection services	days	
Community Support worker	visit	\$25.33 ²
Depot injection clinic	visit	\$73.97 ²
Suicide/crisis services	contact	\$27.32 ²
Educational programs/skills training	program	\$422.99 ²
Group/family therapy	visit/client	\$19.09 ²
1 Source: www.health.gov.bc.ca/msp/infoprac/physbilling/payschedule/index.html		
2 Source: Kopala 2006		
3 Source: Eberle, 2001		
4 Source: Ministry of Health, BC		
5 Source: www.health.gov.bc.ca/msp/infoprac/physbilling/payschedule/index.html		

As with the housing cost and percentage change usage data, we can use the above data to calculate the pre and post intervention service use costs and the resultant cost outcome per year for the total cohort of people affected by the housing intervention. In this section, we present the data necessary to calculate the net effect on the costs related to this intervention. The following results section summarizes the outcomes of our model for each of the major groupings of costs.

5.7. Results

This section presents the results of our costing model. The results are presented for each step of the costing – capital, housing and residential services, and other services – for each of the populations of interest. First, we discuss the results for the absolutely homeless group, followed by the ‘at imminent risk’ group, followed by the combined group. The net effect of the intervention on public sector costs is described.

5.7.1. Absolutely Homeless

5.7.1.1 Capital

If we examine only the absolutely homeless population, capital costs are \$783.6 million upfront, which translates to an annualized equivalent cost of \$30.5 million per year overall or \$2,592 per person per year (see Table 16a).

5.7.1.2 Housing and Residential Services

Based on our definition of the target population and their current location within the housing system in BC, the pre and post intervention costs for each type of housing presented in Table 21 needs to be carefully interpreted. Table 21 shows many \$0s in the pre-intervention column. This means that, with respect to the *target population*, the public sector incurs no costs currently because we have assumed that the absolutely homeless do not reside in those units. Likewise, Table 21 shows \$0 for emergency shelter costs *post-intervention* – meaning, similarly, that we assume the target population will not be using emergency shelters after the provision of adequate housing.

As expected, there is a cost associated with providing housing and supports to those who were previously generating few housing and residential services related costs because they were homeless. Specifically, the net effect of residential support services on the public sector costs of the intervention is \$148 million per year (Table 21). On a per person basis, this is a change from \$4,308 per year to \$16,909 per year.

Table 21: Housing and Residential Services Cost (Avoidance) Per Year (for Absolutely Homeless Population)

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Residential Care	\$0	\$2,550,296	\$2,550,296
Independent Supported Housing			
Low Barrier Housing	\$0	\$24,921,105	\$24,921,105
Supported Housing	\$0	\$162,901,245	\$162,901,245
Transitional Crisis	\$0	\$7,676,037	\$7,676,037
BC Housing Health Services	\$0	\$632,303	\$632,303
Emergency Shelter	<u>\$50,617,563</u>	<u>\$0</u>	<u>(\$50,617,563)</u>
Net Cost (Avoidance)	\$50,617,563	\$198,680,987	\$148,063,424

5.7.1.3 Other Services

Using information available for calculating the costs of ‘other services’ utilized in the ideal housing intervention, we present the net effect on public sector costs of the changes in other service use (see Table 22). We present these results per person and for the entire sub-population (the absolutely homeless). Overall, the change in service usage post intervention will generate a net ‘cost avoidance’ for the province in the amount of \$211 million per year for the absolutely homeless population. The increase in health care

outpatient use is more than offset by the reduction in inpatient care resulting in the 'cost avoidance' in health care post intervention. There is also a reduction in costs associated with criminal justice (correctional institutions) because of fewer days in jail. We do not have information about changes in use of social services; this has yet to be determined.

Table 22: Other Services Cost (Avoidance) Per Year for the Absolutely Homeless Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Health Care	\$53,161	\$36,285	(\$16,876)
Correctional Institutions	\$1,672	\$564	(\$1,108)
Social Services	N/A	N/A	N/A
Net Cost (Avoidance) Per Person	\$54,833	\$36,848	(\$17,985)
	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Health Care	\$624,641,353	\$426,347,074	(\$198,294,280)
Correctional Institutions	\$19,645,837	\$6,621,396	(\$13,024,441)
Social Services	N/A	N/A	N/A
Net Cost (Avoidance)	\$644,287,191	\$432,968,470	(\$211,318,721)

5.7.1.4 The Net Effect on Costs

Finally, we present the net effect of the intervention on costs in Tables 23 and 24. First, Table 23 presents only the net effect of the change in recurrent costs; namely, housing and residential support costs and other service use costs (i.e. excluding capital costs). As the cost avoidance in other services more than offsets the increase in housing and residential support costs, we find a net cost avoidance of \$63 million per year for the absolutely homeless population.

Table 23: Housing Intervention Cost (Avoidance) Per Year (excluding capital costs) for Absolutely Homeless Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Housing and Residential Services	\$50,617,563	\$198,680,987	\$148,063,424
Other Services	\$644,287,191	\$432,968,470	(\$211,318,721)
Net Cost (Avoidance)	\$694,904,754	\$631,649,457	(\$63,255,297)

Second, we present the net effects of the intervention on costs including housing and residential support services, other services, *and* capital costs (amortized so that they are expressed in annual equivalent terms) in Table 24. We find an overall net 'cost avoidance' per year to the province of \$32.8 million per year for the absolutely homeless population alone. This represents a per person change from \$59,141 to \$56,349 per year for the absolutely homeless population ('cost avoidance' of \$2,792 per person per year).

Table 24: Housing Intervention Cost (Avoidance) Per Year (including capital costs) for Absolutely Homeless Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Housing and Residential Services	\$50,617,563	\$198,680,987	\$148,063,424
Other Services	\$644,287,191	\$432,968,470	(\$211,318,721)
Capital Costs (amortized)	<u>\$0</u>	<u>\$30,454,119</u>	<u>\$30,454,119</u>
Net Cost (Avoidance)	\$694,904,754	\$662,103,576	(\$32,801,178)

5.7.2. 'At Imminent Risk' for Homelessness

5.7.2.1 Capital

For the 'at imminent risk' population, capital costs total \$467.4 million upfront, as detailed in Table 16b. The annualized equivalent cost is \$18.2 million per year, or \$2,597 per person per year.

5.7.2.2 Housing and Residential Services

For the 'at imminent risk' population, the net effect of residential support services on the public sector costs of the intervention is \$118.5 million per year (Table 25). On a per person basis, this is a change from \$0 per year to \$16,907 per year. Note that in the pre-intervention scenario, housing costs are non-existent because we are focusing on the members of this population who are not housed in current supported housing stock (n=7009).

Table 25: Housing and Residential Services Cost (Avoidance) Per Year for 'At Imminent Risk' Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Residential Care	\$0	\$1,521,279	\$1,521,279
Independent Supported Housing			
Low Barrier Housing	\$0	\$14,854,770	\$14,854,770
Supported Housing	\$0	\$97,172,326	\$97,172,326
Transitional Crisis	\$0	\$4,578,838	\$4,578,838
BC Housing Health Services	\$0	\$377,176	\$377,176
Emergency Shelter	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net Cost (Avoidance)	\$0	\$118,504,388	\$118,504,388

5.7.2.3 Other Services

Overall, the change in service usage post intervention will generate a net 'cost avoidance' for the province in the amount of \$126 million for the 'at imminent risk' population (see Table 26). The increase in health care outpatient use is more than offset by the reduction in inpatient care resulting in the 'cost avoidance' in health care post intervention. There is also a reduction in costs associated with the corrections system because of fewer days in jail. Again, we do not have information about changes in use of social services; this has yet to be determined. In summary, for the 'at imminent risk' group on a per person basis, this is a change from \$54,833 per year to \$36,848 per year.

Table 26: Other Services Cost (Avoidance) Per Year for 'At Imminent Risk' Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Health Care	\$53,161	\$36,285	(\$16,876)
Correctional Institutions	\$1,672	\$564	(\$1,108)
Social Services	N/A	N/A	N/A
Net Cost (Avoidance) Per Person	\$54,833	\$36,848	(\$17,985)
	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Health Care	\$372,605,212	\$254,320,565	(\$118,284,647)
Correctional Institutions	\$11,718,951	\$3,949,733	(\$7,769,218)
Social Services	N/A	N/A	N/A
Net Cost (Avoidance)	\$384,324,163	\$258,270,298	(\$126,053,865)

5.7.2.4 The Net Effect on Costs

Finally, we present the net effect of the intervention on costs in Tables 27 and 28. First, Table 27 presents only the net effect of the change in recurrent costs; namely, housing and residential support costs and other service use costs (i.e. excluding capital costs). As the cost avoidance in other services offsets the increase in housing and residential support costs, we find a net cost avoidance of \$7.5 million for the 'at imminent risk' population.

Table 27: Housing Intervention Cost (Avoidance) Per Year (excluding capital costs) for 'At Imminent Risk' Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Housing and Residential Services	\$0	\$118,504,388	\$118,504,388
Other Services	\$384,324,163	\$258,270,298	(\$126,053,865)
Net Cost (Avoidance)	\$384,324,163	\$376,774,686	(\$7,549,477)

Second, we present the net effects of the intervention on costs including housing and residential support services, other services, *and* capital costs (amortized so that they are expressed in annual equivalent terms) in Table 28. We found an overall net cost per year to the province of \$10.6 million per year for the 'at imminent risk' population. This represents a per person change from \$54,833 to \$56,348 for the 'at imminent risk' population (cost of \$1,515 per year).

Table 28: Housing Intervention Cost (Avoidance) Per Year (including capital costs) for the 'At Imminent Risk' Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Housing and Residential Services	\$0	\$118,504,388	\$118,504,388
Other Services	\$384,324,163	\$258,270,298	(\$126,053,865)
Capital Costs (amortized)	\$0	\$18,165,738	\$18,165,738
Net Cost (Avoidance)	\$384,324,163	\$394,940,424	\$10,616,261

5.7.3. Combined Homeless and 'At Imminent Risk' Populations

5.7.3.1 Capital

For the combined population, capital costs total \$1.25 billion upfront, as detailed in Table 16c. The annualized equivalent cost is \$48.6 million per year, or \$2,592 per person per year.

5.7.3.2 Housing and Residential Services

For the combined population, the net effect of residential support services on the public sector costs of the intervention is \$266.6 million per year (Table 29). On a per person basis, this is change from \$2,698 per year to \$16,908 per year.

Table 29: Housing and Residential Services Cost (Avoidance) Per Year for Combined Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Residential Care	\$0	\$4,071,575	\$4,071,575
Independent Supported Housing			
Low Barrier Housing	\$0	\$39,775,875	\$39,775,875
Supported Housing	\$0	\$260,073,571	\$260,073,571
Transitional Crisis	\$0	\$12,254,875	\$12,254,875
BC Housing Health Services	\$0	\$1,009,479	\$1,009,479
Emergency Shelter	\$50,617,563	\$0	(\$50,617,563)
Net Cost (Avoidance)	\$50,617,563	\$317,185,375	\$266,567,812

5.7.3.3 Other Services

Overall, the change in service usage post intervention will generate a net 'cost avoidance' for the province in the amount of \$337 million per year for the combined population (see Table 30).

Table 30: Other Services Cost (Avoidance) Per Year (for 'At Imminent Risk' and Absolutely Homeless Population)

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Health Care	\$53,161	\$36,285	(\$16,876)
Correctional Institutions	\$1,672	\$564	(\$1,108)
Social Services	N/A	N/A	N/A
Net Cost (Avoidance) Per Person	\$54,833	\$36,848	(\$17,985)
	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Health Care	\$997,246,566	\$680,667,639	(\$316,578,927)
Correctional Institutions	\$31,364,788	\$10,571,129	(\$20,793,659)
Social Services	N/A	N/A	N/A
Net Cost (Avoidance)	\$1,028,611,354	\$691,238,768	(\$337,372,586)

5.7.3.4 The Net Effect on Costs

Finally, we present the net effect of the intervention on costs in Tables 31 and 32. First, Table 31 presents only the net effect of the change in recurrent costs; namely, housing and residential support costs and other service use costs (i.e. excluding capital costs). As the cost avoidance in other services more than offsets the

increase in housing and residential support costs, we find a net 'cost avoidance' of \$70.8 million per year for the combined population.

Table 31: Housing Intervention Cost (Avoidance) Per Year (excluding capital costs) for 'At Imminent Risk' and Absolutely Homeless Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Housing and Residential Services	\$50,617,563	\$317,185,375	\$266,567,812
Other Services	\$1,028,611,354	\$691,238,768	(\$337,372,586)
Net Cost (Avoidance)	\$1,079,228,917	\$1,008,424,143	(\$70,804,774)

We found an overall net 'cost avoidance' per year to the province of \$22 million per year for the 'at imminent risk' and absolutely homeless population combined (Table 32). This represents a per person change from \$57,531 per year to \$56,349 per year ('cost avoidance' of \$1,183 per person per year) for the combined group.

Table 32: Housing Intervention Cost (Avoidance) Per Year (including capital costs) for 'At Imminent Risk' and Absolutely Homeless Population

	<u>Pre Intervention</u>	<u>Post Intervention</u>	<u>Cost (Avoidance)</u>
Housing and Residential Services	\$50,617,563	\$317,185,375	\$266,567,812
Other Services	\$1,028,611,354	\$691,238,768	(\$337,372,586)
Capital Costs (amortized)	\$0	\$48,619,858	\$48,619,858
Net Cost (Avoidance)	\$1,079,228,917	\$1,057,044,001	(\$22,184,917)

In summary, a capital investment of \$1.25 billion is needed to provide appropriate housing for an estimated 18,759 'at imminent risk' and absolutely homeless people in British Columbia with SAMI. This produces cost avoidance of \$22.2 million per year in recurrent costs including residential support services and reductions in associated health service use, corrections costs, and use of social services. If we focus solely on the estimated 11,750 absolutely homeless, approximately \$783.5 million in capital investment is required, which produces a cost avoidance of \$32.8 million per year in recurrent costs.

5.8. Discussion

Whether we consider the entire population in need or just the absolutely homeless, the costing model suggests that provision of housing and supports for adults with SAMI will create cost avoidance for the provincial government. **Our baseline estimates suggest that recurrent (operating) cost avoidance is in the order of \$3,774 per person per year for the combined 'at imminent risk' and absolutely homeless, cost avoidance of \$2,792 per person per year for the absolutely homeless, and a cost of \$1,515 for the 'at imminent risk' population.**

The following table summarizes the findings of the cost analysis for the two populations of interest:

Summary Table: Annual costs and cost avoidance associated with the status quo and providing recommended housing and support to the absolutely homeless, those 'at imminent risk' of homelessness, and both groups combined.

Annual Costs/Cost Avoidance	Absolutely Homeless (n = 11,750)	'At Imminent Risk' (n = 7,009)*	Combined Population (n=18,759)*
Status Quo			
Capital Costs (annual equivalent)	\$0	\$0	\$0
Housing & Support Costs	\$50.6 million	\$0	\$50.6 million
Health & Correctional Institution Costs	\$644.3 million	\$384.3 million	\$1.0 billion
<i>Total Cost</i>	<i>\$694.9 million</i>	<i>\$384.3 million</i>	<i>\$1.08 billion</i>
Recommended Investment			
Capital Costs (annual equivalent)	\$30.5 million	\$18.2 million	\$48.6 million
Housing & Support Costs	\$198.7 million	\$118.5 million	\$317.2 million
Health & Correctional Institution Costs	\$433.0 million	\$258.3 million	\$691.2 million
<i>Total Cost</i>	<i>\$662.1 million</i>	<i>\$394.9 million</i>	<i>\$1.06 billion</i>
Overall Cost (Avoidance)	(\$32.8 million)	\$10.6 million	(\$22.2 million)

* It is estimated that 14,750 adults with SAMI are at-risk, however, 7,741 supported housing units are currently available and, it is assumed, used by this group. When the current supported housing stock is subtracted from the total at-risk population, the final target population is 7,009 (now referred to as 'at imminent risk') and 18,759 for the combined population.

Regardless of differences in geographical areas and populations studied, the published literature tends to show similar patterns of shifting service use before and after intervention. Foremost, after entering housing with support, use of emergency shelters drops (though not always to zero) and the net effect on the costs of housing provision is usually positive (better configurations of residential provision tend to cost more). Second, in health care there is a consistent shift out of the more expensive forms of service provision (emergency room use and psychiatric hospital care) towards greater use of outpatient health care, as well as community-based mental health services. Third, the literature suggests a reduction in the number of days spent in correctional institutions. However, it is not clear whether this is caused by there being fewer incidents or whether the same number of crimes is being committed but each is of lower severity. This distinction is important, as the former would translate into a reduction in demand on other sectors of the criminal justice system such as policing, whereas the latter does not. Absent from this evidence is any information on the impact of better housing/support provision has on the use of social services – although we might expect to see a replication of the pattern observed for health services, namely a reduction in institutional care and an increase in community-based services.

Capital costs are significant for this type of intervention. We were restricted to assuming that most units needed to meet post intervention housing status (based on Culhane et al., 2001) would be newly constructed and costed according to the costing information available to us (this assumption excludes family care homes). Clearly, it is possible that some units might be purchased or adapted from available stock rather than constructed, reducing overall capital costs.

According to our split of costs, the Ministries receiving the most benefit from this intervention are Health and the Solicitor General (corrections). This benefit is purchased by the Ministry of Forests and Range – Housing Branch, which will pay for the intervention (in capital cost), however, the Ministry of Health will incur greater housing and residential support costs for the target population than it does currently.

5.9. Caveats and Limitations

A major caveat arises from our use of *average costs* to estimate the likely 'cost avoidance' to be derived from marginal reductions in service use. The cost 'avoidance' reported in Table 23 needs to be interpreted with caution. Average costs overstate the *financial* cost avoidance that arise from small reductions in service use because many components of cost are fixed (invariant to changes in use). Rather, the average cost is used to reflect the *value* of the resources that are freed for an alternative use. If a homeless person requires fewer days in hospital, then it is assumed that the bed-days can be used by someone else in need. Thus, health care expenditure does not necessarily fall by the amounts we report here, but resources valued at their average cost are made available for the benefit of others. It is in this context that we refer to 'cost avoidance'.

There are also some limitations to note. The cost model is based on evidence from a variety of sources, none of which identically matches the current context of the intervention being evaluated for British Columbia. Specifically, we have taken relevant unit cost data from Canada but have used US information on service use before and after implementing new housing policies. Our estimates of cost avoidance will be biased to the extent that service use differs between the USA and Canada or to the extent that the effectiveness of housing provision differs. For example, we will have overestimated the cost avoidance if use of hospital services by homeless people is higher in the USA than in Canada. We note, however, that just as in Canada, homeless people in the USA are entitled to free access to public hospitals (through the Medicaid system). We expect therefore that the expected error in these values is small.

Our model is further limited by its static nature. We do not account for the dynamic effects of the housing intervention and the rolling changes that would occur subsequently on service use. Rather, we present two 'snapshots' of service use amongst the target population, pre and post intervention. We expect that, because of this limitation, any cost avoidance predicted in our model are higher than should be expected. For example, it may take some time before those homeless people with SAMI reduce their current level criminal activity (in the model we assumed this change to happen instantly) and the resultant cost avoidance is realized.

The restricted scope of our model (to public sector costs only) can also be viewed as limitations. We have not included changes in costs incurred by homeless people or their family members for example, or changes in costs incurred by members of the public (because of the reduction in the rate of crime, for example).

Furthermore, we have focused only on costs and provide no estimates of the outcomes of the intervention or their value. Thus, we have excluded the effect that the intervention has on the health and well-being of homeless people (rather than just their health care usage) and the benefits we all feel from living in a community with a lower rate of crime.

We were also limited in our ability to incorporate newer housing types and their effectiveness in our model. As stated previously, the base-line model does not include ACT case management although this is recommended elsewhere in this report. Given the nature of this costing model and the limited effectiveness data about the outcomes of ACT management on other types of service usage, we cannot reliably predict this type of case management's effect on costs. However, the literature suggests that while ACT case management does indeed cost more than regular case management, it may also create further cost reductions in other service usage.

Finally, the model is constrained by the overall limited availability of effectiveness data. We have had to make some assumptions to cover gaps in the evidence, especially relating to changes in the use of social services and the criminal justice system outside of correctional facilities. We expect use of most social services (and therefore costs) to increase following the provision of more appropriate housing and residential supports and so our estimate of the cost-avoidance is possibly on the high side. However, the gaps in the criminal justice system would work the other way as we expect costs here to be lower. The net effect is therefore ambiguous given the missing information. That said, our results fit well with other *ex post* analyses of similar interventions (Pomeroy, 2006; Culhane *et al.*, 2002).

6. Recommendations and Future Directions

6.1. Why the Current Approach Doesn't Work

The current housing and support service arrangement has evolved on an *ad hoc* basis, resulting in lack of coordination and accountability. The following factors have contributed to BC's increased rates of homelessness among the SAMI population.

- **Funding:** There is no mechanism for coordinating the efforts and priorities of different funding sources, or ensuring that money goes where it is most needed and best used. The rationale for funding is often unclear – some agencies appear to be adequately funded, while others with similar programs and clientele are not.
- **Service patchwork:** The current patchwork of localized services means that many individuals with SAMI fall through the cracks and do not get the help they need. The roles of different services are not clear and collaboration does not take place consistently, particularly around concurrent disorders. Each agency has its own linkages and some agencies even compete with each other.
- **Need for ongoing service management:** There is no overall service system management. Individual organizations and funders have done their best without an overview of how services fit together. The system has suffered because there is no one to provide system management to support change across sectors and to pull together agencies to solve problems.
- **Emergency bias:** The system is biased toward emergency and survival-level programs. Despite widespread agreement that insufficient attention is devoted to preventing homelessness, there has been very little action in this regard. Service providers are forced to spend their time creating stop-gap solutions to immediate crises. Prevention and long-term approaches must replace the reactive responses to homelessness and SAMI that have been relied on to date.
- **Insufficient attention to mental illness and addiction:** Service planning has not been organized around the diverse sub-groups of homeless people, so effective strategies have not been developed to meet their needs. In BC, there are currently no Assertive Case Management programs available to people with SAMI.
- **No Provincial Housing and Support Strategy for SAMI:** A provincial strategy, with clear benchmarks, timelines and targets, that addresses the housing, support and service needs of homeless people with SAMI and guides the implementation, evaluation, and ongoing provision of services is needed.
- **Lack of a comprehensive information system:** No single, comprehensive information system exists to help people in need of housing and support and to evaluate the combined effectiveness of services.

6.2. Recommendations

A multitude of reports and studies over the past decade have established wide-spread consensus on what is needed to combat homelessness: a coordinated system to provide a continuum of supported housing options; programs to increase the supply of low-cost housing and preserve existing low-cost housing; measures to address affordability; education and advocacy to win public support; the involvement of homeless people in creating strategies for homelessness. A great deal of interest and support has developed

around homelessness and SAMI in BC; it is time to build on these first steps. We know what works. It is time to take action.

The population of absolutely (street) homeless adults with SAMI (approximately 11,750) can be used as a *starting point* for describing the need for new units and services.

6.2.1. Leadership and Accountability

All levels of government must take ownership of the problem of homelessness and be held accountable at the highest level.

- Build on the work underway by the Premier's Task Force on Homelessness by developing a 10-year plan to ensure leadership, commitment, and accountability on housing/support issues at the highest level of Provincial Government.
- Engage multiple stakeholders, including service providers, consumers and formerly homeless individuals, and homeless advocates to ensure ground-level expertise informs decision-making processes;
- Tap the extensive expertise of private financial and development communities to provide structured advice and counsel;
- Direct public benefit corporations and line agencies to coordinate their efforts to achieve BC's goals for housing, support and related issues;
- Employ strategies that leverage public resources, bonding authority and existing reserves with private dollars;
- Require creative and efficient use of both existing and new resources;
- Oversee BC's efforts to ensure accountability on housing goals by developing a clear housing strategy with benchmarks, timelines, and targets.
- Develop a **Provincial Housing and Support Strategy for People with SAMI** with clear benchmarks, timelines, and targets for housing, support, and related service needs of homeless people with SAMI. Such a plan would guide the provision of services and hold government accountable.

The Province has an important role to play in ensuring that needs and services of people with SAMI are met, regardless of whether they live in urban or rural environments.

- People with SMI living in distressed urban centres, such as Vancouver's Downtown East Side, Surrey, Victoria, and Kamloops require more housing and services, though the Province should look at ways of delivering these services in a way that will facilitate access to services in more normalized, less distressed areas.
- Affordable and supported housing must be made available in rural, northern, and other underserved regions of the province. Development in rural and northern communities must address challenges such as transportation and the availability of housing stock.
- Engage stakeholders and advocates in rural areas to develop flexible and creative strategies to address housing needs in service poor areas;
- Engage Indian & Northern Affairs Canada (INAC), CMHC, Aboriginal organizations and band councils to address the overlapping housing issues on reserve and in rural communities;
- An environmental scan in rural and urban areas could determine the potential role of private landlords in addressing housing needs.

6.2.2. Supported Housing

Permanent supported housing has proven to be the most cost effective solution to end the cycle of homelessness among the SAMI population and should be the cornerstone of mental health and addiction reform.

- A Provincial housing plan must include the creation of new units across the housing continuum as well as enhanced subsidies, pairing operating support with capital projects to ensure viability.
- Consolidate and link operating and services funding to capital development. Such coordination would create greater efficiency across BC agencies, and would no longer leave units ready for occupancy without services funding or rental subsidies available for incoming residents.
- Ensure that annual appropriations for services funding keep pace with actual costs of meeting the needs of the various supported housing populations (e.g., mental health, addictions, concurrent disorders).
- Develop realistic benchmarks for housing supply and consistent standards for service provision, starting with the lower estimates provided in this report and refining estimates and benchmarks on an annual basis.
- Preserve affordable and accessible housing opportunities for vulnerable populations by improving, expanding, and better coordinating the set of targeted programs that provide rental subsidies or reduce operating costs.
- Provincial definitions of special needs and eligibility for supported housing need to include “hard to house” homeless people. Many chronically homeless people are “hard to house” but have not been formally diagnosed as SAMI. Criteria for supported housing need to be flexible such that a formal diagnosis is not necessarily required for homeless people to obtain supported housing.

Alcohol and drug use problems cannot be addressed in isolation from overall health and housing needs.

- Integrate a **harm reduction** philosophy to get people off the street and to address the complex needs of individuals with addictions and concurrent disorders.
- Create more **Housing First** and **low barrier housing** options in all five Health Authorities.
- Provide high-level and low-level support services through a multi-disciplinary ACT team
- Provide **consumer choice** around housing and support services.
- Foster the development of housing projects with specific mandates, allowing providers to specialize in particular kinds of issues and client needs.
- Ensure homeless applicants can access a suitable range of housing choices without going through the regular waiting list procedures.
- Improve services/links to move people into supported housing.
- Concerted outreach efforts are required to reach people with **concurrent disorders**.
- Increase shelter and outreach staff/resources so clients can be assessed in order to determine the support services they need and want.
- Increase the representation of Aboriginal staff at existing shelters and outreach programs to better engage Aboriginal clients.
- Increase population-specific housing and support services that target Aboriginal people and women.
- Encourage and support partnerships between housing providers, shelter providers, and service agencies

6.2.3. Case Management

Case management services must include vocational rehabilitation, active outreach, medication management, assistance with obtaining housing and mental health and addictions services, psychosocial rehabilitation, and linkages to other services.

- Fully-integrated, well-defined ACT teams are needed for approximately 20% of individuals with SAMI who are absolutely homeless. Clients should be able to choose the frequency and amount of services they receive.
- Develop ACT standards based on recommendations around multidisciplinary staff and team approach; integration of services; low client-staff ratios; rapid access; assertive outreach in the community; individualized and time-unlimited services.
- Ensure that ACT teams for SAMI include a housing specialist to coordinate housing services as well as staff with expertise in crisis stabilization; housing and treatment should be closely linked but separate.
- Ensure that case management services are portable within a Health Authority, i.e., a tenant won't lose support if they move to another residence.

6.2.4. Aboriginal Peoples

- Develop a specific strategy to address the disproportionate numbers of Aboriginal people who have SAMI and are inadequately housed throughout BC.
- Work with the Aboriginal Housing Management Association, Aboriginal Health, and Aboriginal housing service providers, using a co-delivery or partnership model with CMHC for the construction of housing. The Province could consider a shared-cost agreement with the Federal government.
- Provide resources to enable culturally-relevant self-sufficiency programs to operate in Aboriginal non-market housing (see also SPARC-BC, 2006).
- Link trades training for Aboriginal people with new construction of subsidized housing.

6.2.5. Health Strategies

- Develop a more integrated system for preventing and treating SAMI and other health issues related to homelessness;
- Revise discharge policies and practices such that people with SAMI are not discharged to shelters or the street (e.g., infirmary beds are needed for homeless people who are still sick when discharged).
- Hospital emergency rooms need staff who are skilled in working with homeless SAMI people.
- Removing barriers to health care:
 - Lack of identification makes it difficult for people with SAMI to obtain health care;
 - People who do not have stable housing cannot generally receive Home Care.
 - Many homeless SAMI people have difficulty getting the medication they need.
- Foster development of innovative public health programs for homeless SAMI people.
 - Improve access and availability of mental health and addiction services in general, and to integrated services for people with concurrent disorders in particular.

6.2.6. Income Assistance

Changes to eligibility criteria and the complexity of the application process for both basic income supports and disability benefits have made it difficult for people with SAMI to successfully apply for benefits without the help of an advocate.

- Build on and continue to fund efforts to simplify and expedite the application process for homeless people with SAMI through homeless outreach projects (eg., BC Housing and CMHA) and other policy initiatives (e.g., Emergency Needs Assessment Policy).

6.2.7. Corrections

The Corrections Service of Canada has increased resources to assist offenders on release. These include locating identification, securing health and UIC cards and obtaining IA. The program also ensures that some mentally disordered offenders are provided accommodation, assisted with special needs, and provided mental health resources and links to community services.

- The provincial justice system should further enhance resources to facilitate access to supported housing and IA by including corrections staff on ACT and other multidisciplinary teams.

6.2.8. Affordable Housing

The chronic shortage of affordable housing and the failure of private markets to provide such housing means that government involvement at all levels is necessary. Government must demonstrate new determination and creativity on affordable housing issues, supporting a balanced housing strategy that combines substantial and sustained provincial investment with the most effective use of available resources.

- Make a substantial and sustained public investment over 10 years to create new units of housing affordable to low-income residents of BC, and to preserve adequate and affordable housing.
- Actively protect, maintain, and improve existing low-income housing stock through vigilant enforcement of existing regulations and by-laws.

6.2.9. Landlord and Tenant Support Services

- Educate landlords re: SAMI and tenants re: their rights under the Residential Tenancy Act.
- Facilitate access to advocates who can provide one-on-one assistance with housing searches and contact with landlords.
- Award extra funding to providers who are prepared to house homeless applicants so they can provide on-site support with higher staff/tenant ratios.
- Award housing providers higher maintenance budgets to deal with unit turnover and repairs when tenants damage the units.
- Provide help for vulnerable households in maintaining their tenancy (e.g., assistance or training for households in unit maintenance).
- Trusteeship programs and initiatives so that the housing portion of social assistance is paid directly to the social housing landlord to help prevent eviction due to non-payment of rent;

6.2.10. Public Education

- Develop methods to gain community acceptance for affordable, supported, and low-demand housing and promote public education.
- Hire a community liaison worker to meet with neighbours during the planning phase of a proposed project.

References

- Adams, C., Pantelis, C. E., Duke, P. J., & Barnes, T. R. (1996). Psychopathology, social and cognitive functioning in a hostel for homeless women. *British Journal of Psychiatry: The Journal of Mental Science*, 168, 82-86.
- Allness, D. J. (1997). The Program of assertive community treatment (PACT): The model and its replication. *New Directions for Mental Health Services*, 74, 17-26.
- Ambulance Paramedics of British Columbia. (2002). On the front line: A review of the BC Ambulance Service. Retrieved on October 25, 2006, from www.apbc.ca/onthefrontline/pdf/apbchi.pdf.
- Anderson, A., Sherwood, K., & TWR Consulting. (2000). *The Connecticut supportive housing demonstration program evaluation report*. New Haven, CT: Corporation for Supportive Housing.
- Andrews, G. and the Tolkien II Team. (2006). *Tolkien II: A needs-based, costed stepped-care model for mental health services*. Sydney: World Health Organization.
- Bachrach, L. (1987). Homeless women: A context for health planning. *The Milbank Quarterly*, 65, 371-396.
- Bachrach, L. (1992). Continuity of care. *New Directions in Mental Health Services*, 35, 63-73.
- Bahr, H. (1973). The politicizing of everyday life: Social conditions of peace. *Journal of Peace Research*, 10, 37.
- Bank of Canada. (2006). Consumer Price Index, 1995 to present. Retrieved on October 25, 2006, from <http://www.bankofcanada.ca/en/cpi.html>.
- Barrow, S., Herman, D., Cordova, P., & Struening, E. (1999). Mortality among homeless shelter residents in New York City. *American Journal of Public Health*, 89, 529-534.
- Barry, W. (1982). Comparison of family care and group homes as alternatives to institutions. *American Journal of Mental Deficiency*, 86, 588-595.
- Baxter, E. & Hopper, K. (1981). *Private lives/public spaces: Homeless adults on the streets of New York City*. New York: Community Service Society.
- BC Housing (2006). *BC Housing 2006/7 - 2008/9 Service Plan. Housing Solutions for Healthier Futures*. Retrieved on October 26, 2006, from http://www.bchousing.org/resources/About%20BC%20Housing/Service_Plan/2006/BCH_service_plan_2006_final.pdf.
- Bebout, R., McHugo, G., Cleghorn, J., Harris, M., Xie, H., & Drake, R. (2001). *The DC homelessness prevention project: A study of housing and support models for mentally ill individuals at risk for homelessness*. Final Report. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- Berry, M., Chamberlain, C., Dalton, T., Horn, M., & Berman, G. (2003). *Counting the cost of homelessness: A systematic review of cost effectiveness and cost benefit studies of homelessness*. Prepared for the Commonwealth National Homelessness Strategy.

- Best, K. A., Boothroyd, R. A., Giard, J. A., Stiles, P. G., Suleski, J., Ort, R., & White, R. (2006). Poor and depressed, the tip of the iceberg: The unmet needs of enrollees in an indigent health care plan. *Administration and Policy in Mental Health and Mental Health Services Research, 33*, 172-181.
- Bond, G. R., Drake, R. E., Mueser, K. T., & Latimer, E. (2001). Assertive Community Treatment for people with severe mental illness: Critical ingredients and impact on patients. *Disease Management and Health Outcomes, 9*, 141-59.
- Brekke, J., Raine, A., Ansel, M., & Lencz, T. (1997). Neuropsychological and psychophysiological correlates of psychosocial functioning in schizophrenia. *Schizophrenia Bulletin, 23*, 19-28.
- British Columbia (Government of). 2000. BC's Mental Health Reform: Best practices for housing.
- British Columbia (Government of). 2005. Ministry of Employment and Income Assistance BC Employment and Assistance Rate Tables. Retrieved October 25, 2006, from <http://www.eia.gov.bc.ca/mhr/hsp.htm>.
- British Columbia (Government of). 2006. Medical Services Commission Payment Schedule. Retrieved October 25, 2006 from <http://www.health.gov.bc.ca/msp/infoprac/physbilling/payschedule/index.html>.
- Brunette, M. F. (2001). A comparison of long-term and short-term residential treatment programs for dual diagnosis patients. *Psychiatric Services, 52*, 526-528.
- Buhrich, N., Hodder, T., & Teesson, M. (2000). Lifetime prevalence of trauma among homeless people in Sydney. *Australian and New Zealand Journal of Psychiatry, 34*, 963-966.
- Bunting, T., Filion, P., & Walks, A. (2002). *Households at-risk of homelessness: Distributional patterns across 11 Canadian metropolitan regions*. Government of Canada. Retrieved October 26, 2006, from http://www.homelessness.gc.ca/research/projects/rp03/execsum1_e.asp.
- Burt, M. & Anderson, A. (2005). *AB2034 program experiences in housing people with SMI*. Berkeley, CA: Corporation for Supported Housing.
- Burt, M. R., & Sharkey, P. (2002). *The role of medicaid in improving access to care for homeless people*. Urban Institute. Retrieved on October 26, 2006, from http://www2.urban.org/UploadedPDF/410595_AccessToCare.pdf
- Burt, M. R., Zweig, J. M., Schlichter, K. & Andrews, C. (2000). *Victim Service Programs in the Stop Formula Grants Program: Services Offered and Interactions with Other Community Agencies*. Urban Institute, Washington, DC.
- Burt, M. R. & Wilkins, C. (2005). *Taking Health Care Home: Baseline Report on PSH Tenants, Programs, Policies, and Funding*. Corporation for Supportive Housing.
- Butt, L. (1993). *Residents of Victory Square. A Resident Survey*. Vancouver, BC: City of Vancouver Departments of Health, Housing & Properties, Planning, & Social Planning..
- Canadian Mental Health Association. (2005). *Housing: A Social Necessity*. Retrieved on October 26, 2006, from http://www.cmha.ca/binds/print_page.asp?cid=5-916-919-937&lang=1.
- Canada Mortgage and Housing Corporation (2005). 2001 Census housing series: Issue 8 revised – households spending at least 50% of their income on shelter.
- Canada Mortgage and Housing Corporation. (2004). Innovative supportive housing through a harm reduction approach for substance users: Case studies (Princess Rooms Transitional Housing Demonstration Project). Retrieved on October

26, 2006, from <http://www.cmhc-chl.gc.ca/en/inpr/imhoaf/ho/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=112014>.

- Canada Mortgage and Housing Corporation. (2005). Homeless applicants' access to social housing. Research highlight: Socioeconomic series 05-018.
- Canada Mortgage and Housing Corporation. (2006). Profile of rooming house residents. Research highlight: Socioeconomic series, 06-019.
- Carling, P. (1993). Housing and supports for persons with mental illness: Emerging approaches to research and practice. *Hospital and Community Psychiatry, 44*, 439-449.
- Caton, C. L. M., Shrout, P. E., Dominguez, B., Eagle, P. F. (1995). Risk factors for homelessness among women with schizophrenia. *American Journal of Public Health, 85*, 1153-56.
- Centre for Addictions and Mental Health. (2005). Housing Guide: A Comprehensive Guide for People with Mental Health and Substance Use Concerns. Retrieved on October 26, 2006, from http://www.camh.net/Care_Treatment/Community_and_social_supports/Housing/Housing%20Guide%2020042006%20updated%20Nov%2014%2005.pdf.
- Centre for Applied Research in Mental Health and Addiction. (2006). *Adults with Developmental Disabilities and Complex Behavioural Problems*. Unpublished document prepared for Ministry of Health – Mental Health & Addictions Branch. Vancouver, BC.
- Center for Mental Health Services. (1997). *Cooperative agreements to evaluate housing approaches for persons with serious mental illness*. Washington, DC: US Dept. of Health and Human Services.
- Center for Mental Health Services (CMHS) Housing Initiative Steering Committee. (2002). Housing matters: Final results from the CMHS housing initiative. Presented at the Annual Meeting of the American Public Health Association. Philadelphia, PA.
- City of Vancouver Housing Centre. (April 2005). *Homeless Action Plan*. Vancouver, BC.
- City Spaces Consulting. (March 2006). *Survey of the health and social support service needs of tenants in public housing*. Vancouver, BC.
- Clapham, D. & Munro, M. (1990). Ambiguities and contradictions in the provision of sheltered housing for older people. *Journal of Social Policy, 19*, 27-45.
- Clark, C. & Rich, A. (2003). Outcomes of homeless adults with mental illness in a housing program and in case management only. *Psychiatric Services, 54*, 78-83.
- Cloke (2001).
- Coldwell, C. & Bender, W. (2007). The effectiveness of Assertive Community Treatment for homeless populations with severe mental illness: A meta-analysis. *American Journal of Psychiatry, 164*, 393-399.
- Corporation for Supportive Housing. (2004). *Draft of the Benefits of Supportive Housing: Changes in Residents' Use of Public Housing*. February 2004.

- Community Shelter Board (2002). *Preventing Homelessness: Discharge Planning from Corrections Facilities*. Community Shelter Board. Retrieved on March 21, 2007, from http://www.csb.org/what_s_new/FinalReportAug2002/Final%20Report%20August%202002.pdf.
- Culhane, D. P., Metraux, S., & Hadley, T. (2002). Public service reductions associated with placement of homeless persons with severe mental illness in supportive housing. *Housing Policy Debate*, 13, 107-163.
- Daly, G. P. (1996). *Homeless policies, strategies, and lives on the street*. London: Routledge.
- DeLeon (2000).
- Dickey, B., Latimer, E., Powers, K., Gonzelez, O., & Goldfinger, S. (1997). Housing costs for adults who are mentally ill and formerly homeless. *Journal of Mental Health Administration*, 24, 291-305.
- Dickey, B., Normand, S. L., Norton, E. C., Azeni, H., Fisher, W., & Altaffer, F.. (1996). Managing the care of schizophrenia. Lessons from a 4-year Massachusetts Medicaid study. *Archives of General Psychiatry*, 10, 945-952.
- Dixon, L. B., & Osher, F. (1995). Housing for persons with mental illness and substance use disorders. In Lehman, A. F. & Dixon, L. B. (Eds.) *Double Jeopardy: Chronic Mental Illness and Substance Use Disorders*. (pp. 211-228). Chur, Switzerland: Harwood Academic Publishers.
- Draine, J., Salzer, M., Culhane, D., Hadley, T. (2002). Poverty, social problems, and serious mental illness. *Psychiatric Services*, 53, 899.
- Drake, R., Wallach, M., & Hoffman, J. (1989). Housing instability and homelessness among aftercare patients of an urban state hospital. *Hospital and Community Psychiatry*, 40, 46-51.
- Drake, R., Bebout, R., Xie, H., & McHugo, G. (1997). Housing status among formerly homeless dually diagnosed adults. *Psychiatric Services*, 48, 936-941.
- Drake, R., Yovetich, N., Bebout, R., & Harris, M. (1997). Integrated treatment for dually diagnosed homeless adults. *Journal of Nervous and Mental Disease*, 185, 298-305.
- Drake, R. & Wallach, M. (1999). Homelessness and mental illness: A story of failure. *Psychiatric Services*, 50, 589.
- Drake, R., McHugo, G., Bebout, R., & Becker, D. (1999). A randomized clinical trial of supported employment for inner-city patients with severe mental disorders. *Archives of General Psychiatry*, 56, 627-633.
- Drake, R. E., Goldman, H. E., Leff, H. S., Lehman, A. F., Dixon, L., Mueser, K. T., & Torrey, W. C. (2001). Implementing evidence based practices in routine mental health service settings. *Psychiatric Services*, 52, 179-182.
- Durbin, J., George, L., Koegl, K., & Aitchison, C. (2005). *Review of Ontario mental health supportive housing system and potential data sources for system monitoring*. Health Systems Research and Consulting Unit, Centre for Addiction and Mental Health. Toronto, ON.
- Eberle, M., Kraus, D., Pomeroy, S., & Hulchanski, D. (2001). *Homelessness – Cause & Effects (Volume 3): The Costs of Homelessness in British Columbia*. Government of British Columbia: Victoria, BC.
- Eberle, M., Kraus, D., Luba, S., & Hulchanski, D. (2001). *Homelessness – Cause & Effects (Volume 1): The relationship between homelessness and the health, social services, and criminal justice systems: A review of the literature*. Government of British Columbia: Victoria, BC.

- Ellison, M. L., Rogers, E. S., Sciarappa, K., Cohen, M. (1995). Characteristics of mental health case management: results of a national survey. *Journal of Mental Health Administration*, 22, 101 -12.
- Essock, S. & Kontos, N. (1995). Implementing assertive community treatment teams. *Psychiatric Services*, 46, 679 -83.
- Fakhoury, W., Murray, A., Shepherd, G., & Priebe, S. (2002). Research in supported housing. *Social Psychiatry and Epidemiology*, 37, 301-315.
- Fischer, P., Shapiro, S., Breakey, W., Anthony, J., & Kramer, M. (1986). Mental health and social characteristics of the homeless. *American Journal of Public Health*, 76, 519-524.
- Folsom, D. & Jeste, D. (2002). Schizophrenia in homeless persons: A systematic review of the literature. *Acta Psychiatrica Scandinavia*, 105, 404-413.
- Folsom, D., Hawthorne, W., Lindamer, L. A., Gilmer, T., Bailey, A., Golshan, S., Garcia, P., Unützer, J., Hough, R., & Jeste, D. V. (2005). Prevalence and risk factors for homelessness and utilization of mental health services among 10,340 patients with serious mental illness in a large public mental health system. *American Journal of Psychiatry*, 162, 370-376.
- Forchuk, C., Russell, G., Kingston-MacClure, S., Turner, K., & Dill, S. (2006). From psychiatric ward to the streets and shelters. *Journal of Psychiatric and Mental Health Nursing*, 13, 301–308.
- Fournier, L., Toupin, J., & Cote, G. (1995). Entering the world of homelessness: One year later. Presented at the annual meeting of the American Public Health Association, San Diego.
- Fraser Health Authority. (May 2006). *Mental Health Housing Plan*.
- French, M.T., Sacks, S., De Leon, G., & Staines, K. (1999). Modified Therapeutic Community for Mentally Ill Chemical Abusers: Outcomes and Costs. *Evaluation & the Health Professions*, 22(1), 60-85.
- Frideres, J. (1983). *Native people in Canada: Contemporary conflicts* (2nd Ed.). Scarborough, ON: Prentice Hall Canada, Inc.
- Gaugler, J., Leach, C., Anderson, K. (2004). Correlates of resident psychosocial status in long-term care. *International Journal of Geriatric Psychiatry*, 19, 773-780.
- Gilmer, T. P., Folsom, D. P., Hawthorne, W., Lindamer, L. A., Hough, R. L., Garcia, P., & Jeste, D. V., (2003). Assisted living and use of health services among medicaid beneficiaries with schizophrenia. *The Journal of Mental Health Policy and Economics*, 6, 59-65.
- Goering P., Sylph, J., Foster, R., Boyles, S., & Babiak, T. (1992). Supportive housing: A consumer evaluation study. *International Journal of Social Psychiatry*, 38, 107-119.
- Goering, P., Paduchak, D., & Durbin, J. (1990). Housing Homeless Women: A Consumer Preference Study. *Hosp Community Psychiatry*, 41, 790 -794.
- Goering, P., Wasylenki, D., Lindsay, S., Lemire, D., & Rhodes, A. (1997). Process and outcome in a hostel outreach program for homeless clients with severe mental illness. *American Journal of Orthopsychiatry*, 67, 607-617.
- Goldfinger, S. & Schutt, R. (1996). Comparison of clinicians' housing recommendations and preferences of homeless mentally ill persons. *Psychiatric Services*, 47, 413-415.

- Goldfinger, S., Schutt, R., Tolomiczenko, G., Seidman, L., Penk, W., Turner, W., & Caplan, B. (1999). Housing placement and subsequent days homeless among formerly homeless adults with mental illness. *Psychiatric Services, 50*, 647-679.
- Golden, A., Currie, W., Greaves, E., & Latimer, J. (1999). *Taking responsibility for homelessness: An action plan for Toronto*. Report of the Mayor's Homelessness Action Task Force: Toronto, ON.
- Gulcur, L., Stefancic, A., Shinn, M., Tsemberis, S., and Fischer, S. N. (2003). Housing, hospitalization, and cost outcomes for homeless individuals with psychiatric disabilities participating in continuum of care and housing first programmes. *Journal of Community and Applied Social Psychology, 13*, 171-186.
- Goering, P., Tolomiczenko, G., Sheldon, T. (2002). Characteristics of persons who are homeless for the first time. *Psychiatric Services, 53*, 1472-1474.
- Goldner, E, Hsu, L., Waraich, P., & Somers, J. (2002). Prevalence and incidence studies of schizophrenic disorders: A systematic review of the literature. *Canadian Journal of Psychiatry, 47*, 833-843.
- Goodman, L., Saxe, L., & Harvey, M. (1991). Homelessness as psychological trauma: Broadening perspectives. *American Psychologist, 46*, 1219-1225.
- Government of Canada. (2006). *Out of the Shadows at Last. Final Report of The Standing Senate Committee on Social Affairs, Science, and Technology*. Ottawa, ON.
- Grunberg, J. & Eagle, P. (1990). Shelterization: How the homeless adapt to shelter living. *Hosp Community Psychiatry, 41*, 521-525.
- Hadley, T. R. & Culhane, D. P.. (1993). The status of community mental health centers ten years into Block Grant Financing. *Community Mental Health Journal, 29(2)*, 95 -102.
- Herman, D., Susser, E., Jandorf, L., Lavelle, J., & Bromet, E. (1998). Homelessness among individuals with psychotic disorders hospitalized for the first time: Findings from the Suffolk County mental health project. *American Journal of Psychiatry, 155*, 109-113.
- Hogan, M. F., & Carling, P. J. (1992). Normal housing: a key element of a supported housing approach for people with psychiatric disabilities. *Community Mental Health Journal, 28(3)*, 215 -26.
- Hamberg, J. & Hopper, K. (1992). The changing context of subsistence. In R. Jahiel (Ed.), *Homelessness: A prevention-oriented approach* (pp. 231-237). Baltimore, MD: Johns Hopkins University Press.
- Hudson, J, Hiripi, E., Pope, H. & Kessler, R. (2007). The prevalence and correlates of eating disorders in the National Comorbidity Survey replication. *Biological Psychiatry, 61*, 348-358.
- Hulchanski, J. D., Eberle, M., Olds, K., & Stewart, D. (1991). *Housing and community planning. Solutions to homelessness: Vancouver case studies*. Canada Mortgage and Housing Corporation. Vancouver: University of British Columbia.
- Hulchanski, D. (2000). A new Canadian pastime? Counting homeless people. Retrieved on Dec. 1, 2006, from <http://www.action.web.ca/home/housing/resources.shtml>.
- Hume, M. (December 6, 2006). Suburbs can't escape city's disturbing trend. Retrieved on December 7, 2006, from http://www.theglobeandmail.com/servlet/story/LAC.20061206BCH_OMELESS06/TPStory/TPNational/ BritishColumbia.
- Hurlburt, M., Hough, R., & Wood, P. (1996). Effects of substance abuse on housing stability of homeless mentally ill persons in supported housing. *Psychiatric Services, 47*, 731-736.

- Hurlburt, M., Wood, P., & Hough, R. (1996). Providing independent housing for homeless mentally ill: A novel approach to evaluating long-term longitudinal housing patterns. *Journal of Community Psychology, 24*, 291-310.
- Hurlburt, M. S., Landsverk, J. A., Hough, R. L., Culver, S., Reynolds, B. (1997). Patterns of youth mental health care in public service systems: Results from an enumeration. Paper presented to the annual meeting of the American Public Health Association. Indianapolis, IN.
- Kessel, E., Bhatia, R., Bamberger, J., & Kushel, M. (2006). Public health care utilization in a cohort of homeless adult applicants to a supportive housing program. *Journal of Urban Health, 83*, 860-873.
- Kessler, R., Chiu, W., Demler, O., & Walters, E. (2005). Prevalence, severity, and comorbidity of the 12-month DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry, 62*, 617-626.
- Kogel, P., Burnam, M., & Farr, R. (1988). The prevalence of specific psychiatric disorders among homeless individuals in the inner city of Los Angeles. *Archives of General Psychiatry, 45*, 1085-1092
- Kraus, D., Woodward, J., & Eberle, M. (February 28, 2005). *Models for sustainable partnerships between housing providers and community agencies to address homelessness*. BC Non-Profit Housing Association. Retrieved on October 26, 2006, from <http://ir.lib.sfu.ca/retrieve/3586/Chodarr0256.pdf>.
- Kopala, L., Smith, G., Malla, A., Williams, R., Love, L., Talling D., & R. Balshaw. (2006). Resource utilization in a Canadian national study of people with schizophrenia and related psychotic disorders. *Acta Psychiatrica Scandinavica, 113(430)*, 29-39.
- Kraus, D. (2001). *Housing for people with alcohol and drug addictions: An annotated bibliography*. The City of Vancouver, Housing Centre. Retrieved on October 26, 2006 from <http://199.175.219.1/commsvcs/housing/pdf/Kraus.pdf>.
- Krupa, T., Eastabrook, S., Beattie, P., Carriere, R., McIntyre, D., & Woodman, R. (2004). Challenges faced by service providers in the delivery of Assertive Community Treatment. *Canadian Journal of Community Mental Health, 23*, 115-27.
- Kuhn, R. & Culhane, D. (1998). Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: Results from the analysis of administrative data. *American Journal of Community Psychology, 26*, 207-231.
- Kushel, M., Vittinghoff, E., & Hass, J., (2001). Factors associate with the health care utilization of homeless persons. *JAMA, 285*, 200-206.
- Lamb, H., Bachrach, L., & Kass, F. (1992). *Treating the homeless mentally ill. A report of the Task Force on the Homeless Mentally Ill*. Washington: American Psychiatric Association.
- Lamb, R., & Weinberger, L. (1998). Persons with severe mental illness in jails and prisons: A review. *Psychiatric Services, 49*, 483-492.
- Lambert, M.T. (2002). Linking mental health and addiction services: A continuity-of-care team model. *Journal of Behavioral Health Services and Research, 29*, 433-444.
- Lamberti, J. S., Weisman, R. L., Schwarzkopf, S. B., Price, N., Ashton, R. M., & Trompeter, J. (2001). The mentally ill in jails and prisons: Towards an integrated model of prevention. *Psychiatric Quarterly, 72*, 63-77.
- Lesage, A., Gelinis, D., Robitaille, D., Dion, E., Frezza, D., & Morissette, R. (2003). Toward benchmarks for tertiary care for adults with severe and persistent mental disorders. *Canadian Journal of Psychiatry, 48*, 485-492.
- Lipsey, M. (1990). *Design sensitivity: Statistical power for experimental research*. Newbury Park, CA: Sage.

- Lipton, F., Nutt, S., & Sabatini, A. (1988). Housing the homeless mentally ill: A longitudinal study of a treatment approach. *Hospital and Community Psychiatry, 39*, 40-45.
- Lipton, F., Siegel, C., Hannigan, A., Samuels, J., & Baker, S. (2000). Approaches to providing housing and flexible supports for people with psychiatric disabilities. *Psychosocial Rehabilitation Journal, 16*, 27-43.
- Livingston, J., Srebnik, D., King, D., & Gordon, L. (2002). Approaches to providing housing and flexible supports for people with psychiatric disabilities. *Psychosocial Rehabilitation Journal, 16*, 27-43.
- Livingston J. A., Srebnik, D., & King, D. A. (1992). Approaches to providing housing and flexible supports for people with psychiatric disabilities. *Psychosocial Rehabilitation Journal, 16*, 27-43.
- Marlatt, G. & Tapert, S. (1993). Harm reduction: Reducing the risks of addictive behaviors. In J. S. Baer, G. A. Marlatt & R. McMahon, (Eds). *Addictive behaviors across the lifespan*. Newbury Park, CA.: Sage Publications.
- Marshall, G. N., Burnam, M. A., Koegel, P., Sullivan, J. G., & Benjamin, B. (1996). Objective life circumstances and life satisfaction: Results from the course of homelessness study. *Journal of Health and Social Behavior, 37*, 44-58.
- Martinez, T. E. & Burt, M. R. (2006). Impact of permanent supportive housing on the use of acute care health services by homeless adults. *Psychiatric Services, 57*, 992-999.
- McGrew, J. H., & Bond, G. R. (1995). Critical ingredients of assertive community treatment: Judgments of the experts. *Journal of Mental Health Administration, 22*, 113-125.
- Mechanic, D. (1995). Challenges in the provision of mental health services: Some cautionary lessons from US experience. *Journal of Public Health Medicine, 17*, 132-9.
- Mize, T. I., Paolo-Calabrese, M. A., Williams, T. J., & Margolin, H. K. (1998). Managing the landlord role: How can one agency provide both rehabilitation services and housing with collaboration. *Psychiatric Rehabilitation Journal, 22(2)*, 117.
- Mosher-Ashley, P., Henrikson, N., & French, E. (2000). Meeting the needs of the mentally ill homeless in Massachusetts-based emergency shelters. *Journal of Social Distress and the Homeless, 9*, 1-17.
- Mueser, K. T. & Drake, R. (2000). Psychosocial approaches to dual diagnosis. *Schizophrenia Bulletin, 26*, 105-118.
- National Institute of Mental Health. (1987). *Guidelines for meeting the housing needs of people with psychiatric disabilities*. Rockville, MD.
- Nelson, G., Hall, G. B., & Walsh-Bowers, R. (1997). A comparative evaluation of supportive apartments, group homes, and board-and-care homes for psychiatric consumer/survivors. *Journal of Community Psychology, 25*, 167-188.
- Newman, S., Reschovsky, J., Kaneda, K., & Hendrick, A. (1994). The effects of independent living on persons with chronic mental illness: An assessment of the Section 8 certificate program. *Millbank Quarterly, 72*, 171-198.
- Newman, S. (2001). Housing attributes and serious mental illness: Implications for research and practice. *Psychiatric Services, 52*, 1309-1317.
- New York State Office of Mental Health. (2005). *2005-2009 Statewide Comprehensive Plan for Mental Health Services*. January 2005.
- North, C. et al (2004).

- North, C. & Smith, E. (1992). Posttraumatic stress disorder among homeless men and women. *Hospital and Community Psychiatry, 43*, 1010-1016.
- Nolan, C., ten Broeke, C., Magee, M., & Burt, M. R. (2005). *The Family Permanent Supportive Housing Initiative: Family History and Experiences in Supportive Housing. The Urban Institute and Harder and Company Community Research*. Retrieved on October 26, 2006, from http://www.urban.org/UploadedPDF/411220_FPSHI.pdf.
- Olfson, M. (1990). Assertive community treatment: an evaluation of the experimental evidence. *Hospital and Community Psychiatry, 41*, 634-41.
- O'Malley, L., & Croucher, K. (2005). Supported housing services for people with mental health problems: A scoping study. *Housing Studies, 20*, 831-845.
- Ontario (Government of). 2004. Program standards for Assertive Community Treatment Teams. 2nd Ed.
- Osher, F. & Dixon, L. (1997). Housing for persons with co-occurring mental and addictive disorders. In R. Drake (Ed.). *Readings in Dual Diagnosis*. Columbia, MD: International Association for Psychosocial Rehabilitation Services.
- Osher, F. C., & Drake, R. E. (1996). Reversing a history of unmet needs: approaches to care for persons with co-occurring addictive and mental disorders. *American Journal of Orthopsychiatry, 66(1)*, 4-11.
- Palermo, F., Dera, B., & Delaine, C. (2006). *The cost of homeless and the value of investment in housing support services in Halifax regional municipality*. Prepared for the Cities & Environment Unit, Dalhousie University.
- Pollio, D., Spitznagel, E., North, C., Thompson, S., & Foster, D. (2000). Service use over time and achievement of stable housing in a mentally ill homeless population. *Psychiatric Services, 51*, 1536-43.
- Pomeroy, S. (November 2006). Proactive vs. reactive responses to homelessness: A costing analysis. Presentation to The Alliance to End Homelessness Community Forum. Ottawa, ON.
- Pomeroy, S. (2005). *The cost of homelessness: Analysis of alternate responses in four Canadian cities*. Prepared for the National Secretariat on Homelessness.
- Quigley, J. & Raphael, S. (2001). *The economics of homelessness: The evidence from North America*. Berkeley, CA: Institute of Business and Economic Research.
- Quilgars, D. (2000) Working in the risk society: Families perceptions of, and responses to, flexible labour markets and the restructuring of welfare. *Community, Work & Family, 3*, 15-36.
- Ridgeway, P. & Zipple, A. (1990). The paradigm shift in residential services: From linear continuum to supported housing approaches. *Psychosocial Rehabilitation Journal, 13*, 11-32.
- Rog, D. (2004). The evidence on supported housing. *Psychiatric Rehabilitation Journal, 27*, 334-344.
- Rog., D. & Holupka, C. (1999). Reconnecting homeless individuals and families to the community. In L.B. Fosburg and D. Dennis (Eds.), *Practical lessons: The 1998 national symposium on homeless research*. Delmar, NY: National Resource Center on Homelessness and Mental Illness.
- Rog, D. J., Holupka, C. S., Brito, M. C., Storm, A., Hopper, K., Roy, K., Davidson, C., & Lester, R. (1998). *Next Step: Jobs Second Evaluation/Documentation Report*. Washington, DC: Vanderbilt Institute for Public Policy Studies & Orangeburg, NY: Nathan S. Kline Institute.

- Rosenheck, R. (2000). Cost-effectiveness of services for mentally ill homeless people: The application of research to policy and practice. *American Journal of Psychiatry*, 157, 1563-70.
- Rosenheck, R., Kaspro, W., Frisman, L., & Liu-Mares, W. (2003). Cost-effectiveness of Supported Housing for Homeless Person with Mental Illness. *Archives of General Psychiatry*, 60, 940-951.
- Rosenheck, R. (2003). Closing service system gaps for homeless clients with a dual diagnosis: Integrated teams and interagency cooperation. *The Journal of Mental Health Policy and Economics*, 6, 77-87.
- Ruggeri, M., Lesse, M., Thornicroft, G., Bisoffi, G., & Tansella, M. (1999). Definition and prevalence of severe and persistent mental illness. *British Journal of Psychiatry*, 177, 149-155.
- Salit, S. A., Kuhn, E. M., Hartz, A. J., Vu, J. M. & Mosso, A. L. (1998). Hospitalization Costs Associated with Homelessness in New York City. *The New England Journal of Medicine*, 338(24), 1735-1740.
- Schinnar, A., Rothbard, A., Kanter, R., & Jung, Y. (1990). An empirical literature review of definitions of severe and persistent mental illness. *American Journal of Psychiatry*, 147, 1602-08.
- Sider, D. (2005). *A sociological analysis of root causes of Aboriginal homelessness in Sioux Lookout, Ontario*. Canadian Race Relations Foundation.
- Slade, M., Powell, R., & Strathdee, G. (1997). Current approaches to identifying the severely mentally ill. *Social Psychiatry and Psychiatric Epidemiology*, 32, 177-184.
- Smith, E., North, C., & Spitznagel, E. (1992). A systematic study of mental illness, substance abuse, and treatment in 600 homeless men. *Annals of Clinical Psychiatry*, 4, 111-120.
- Somers, J., Goldner, E., Waraich, P., & Hsu, L. (2006). Prevalence and incidence studies of anxiety disorders: A systematic review of the literature. *Canadian Journal of Psychiatry*, 51, 100-13.
- Somers, J., Goldner, E., Waraich, P., & Hsu, L. (2004). Prevalence studies of substance-related disorders: A systematic review of the literature. *Canadian Journal of Psychiatry*, 49, 373-384.
- Social Planning and Research Council of B.C. (November 2006). *Resource guide: Second BC/Yukon Aboriginal forum on homelessness research*. Vancouver, BC.
- Solomon, P. (1992). The efficacy of case management services for severely mentally disabled clients. *Community mental health journal*, 28(3), 163-180.
- Sosin, M., Piliavin, I., & Westerfelt, H. (1990). Toward a longitudinal analysis of homelessness. *Journal of Social Issues*, 46, 157-174.
- Stein, L., & Test, M. (1980). Alternative to mental hospital treatment: Conceptual model, treatment program, and clinical evaluation. *Archives of General Psychiatry*, 37, 392-397.
- Stroul, B. (1989). Community support systems for persons with long-term mental illness: A conceptual framework. *Psychosocial Rehabilitation Journal*, 12 (3), 9.
- Susser, E., Valencia, E., Conover, S., Felix, A., Tsai, W. Y., & Wyatt, R. J. (1997). Preventing recurrent homelessness among mentally ill men: A critical time intervention after discharge from a shelter. *American Public Health Association*, 87, 256-262.

- Tanzman, B. (1993). An overview of surveys of mental health consumers' preferences for housing and support services. *Hospital and Community Psychiatry, 44*, 450-455.
- Teague, G., Bond, G., Drake, R. (1998). Program fidelity in assertive community treatment: Development and the use of a measure. *American Journal of Orthopsychiatry, 68*, 216-232.
- Teplin (1984).
- Tessler, R. & Dennis, D. (1989). *A synthesis of NIMH-funded research concerning persons who are homeless and mentally ill*. Washington, DC: US Dept. of Health and Human Services.
- Thiessen, R. (2006). *Report on the Homeless*. Retrieved on October 26, 2006, from http://www.gvrd.bc.ca/homelessness/pdfs/Homelessness_Tri-Cities_April-September.pdf
- Three Ways to Home: Greater Vancouver Regional Steering Committee on Homelessness, 2001. Vancouver, BC.
- Thorncroft, G., & Tansella, M. (2004). Components of a modern mental health service: A pragmatic balance of community and hospital care. *British Journal of Psychiatry, 185*, 283-90.
- Trainor, J., Lurie, S., Ballantyne, R., & Long, D. (1987). The supportive housing coalition: a model for advocacy and program development. *Canadian Journal of Community Mental Health, 6*, 93-106.
- Tsemberis, S. & Asmussen, S. (1999). From streets to homes: Pathways to housing consumer preference in a supported housing model. *Alcoholism Treatment Quarterly, 17*, 113-131.
- Tsemberis, S. & Eisenberg, R. F. (2000). Pathways to housing: Supported housing for street-dwelling homeless individuals with psychiatric disabilities. *Psychiatric Services, 51(4)*, 487-493.
- Tsemberis, S., Padgett, D., & Gulcur, L. (2006). Housing First services for people who are homeless with co-occurring serious mental illness and substance abuse. *Research on Social Work Practice, 16*, 74-85.
- Tsemberis, S., Gulchur L., & Nakae M. (2004). Housing first, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. *American Journal of Public Health, 94(4)*, 651-656.
- United Native Nations. (2001). *Aboriginal homelessness in British Columbia*. Vancouver, BC.
- Vancouver Coastal Health. (April 2006). Regional framework for mental health and addictions housing.
- Vancouver Coastal Health. 2006. *Outcome Evaluation, Mental Health Supported Housing*. Author: Vancouver BC.
- Walker, R. & Seasons, M. (2002). Supported housing for people with serious mental illness: resident perspectives on housing. *Canadian Journal of Community Mental Health, 21*, 137-151.
- Waraich, P., Goldner, E., Somers, J., & Hsu, L. (2004). Prevalence and incidence studies of mood disorders: A systematic review of the literature. *Canadian Journal of Psychiatry, 49*, 124-138.
- Wiersma, D. (2006). Needs of people with severe mental illness. *Acta Psychiatrica Scandinavia, 113*, 115-119.
- Weissman, E. M. (2005). Implementing peer-assisted case management to help homeless veterans with mental illness transition to independent housing. *Community Mental Health Journal, 41(3)*, 267-276.
- Wente (2000).

- Wong Y. & Solomon, P. (2002) Community integration of persons with psychiatric disabilities in supportive independent housing: A conceptual model and methodological considerations. *Mental Health Services Research*, 4, 13-28.
- Wright, B. (1998). Behavioral intentions and opportunities among homeless individuals: A reinterpretation of the theory of reasoned action. *Social Psychology Quarterly*, 61, 271-286.
- Wynn, M. (2006). *Concurrent Disorders and Housing Project: Needs Report*. Toronto, ON: Centre for Addictions and Mental Health.
- Zerger, S. (2002). *Substance abuse treatment: What works for homeless people: A review of the literature*. National Health Care for the Homeless Council. Retrieved on March 27, from <http://www.nhchc.org/Publications/SubstanceAbuseTreatmentLitReview.pdf>.
- Ziguras, S. J., & Stuart, G. W. (2000). A meta-analysis of the effectiveness of mental health case management over 20 years. *Psychiatric Services*, 51, 1410-21.
- Zimmerman, M. (1994). Diagnosing personality disorders: A review of issues and research models. *Archives of General Psychiatry*, 51, 225-245.

Appendix A: Description of the Continuum of Permanent Housing Programs for People with SAMI in BC

There are three distinct categories of permanent housing programs for people with SAMI and/or substance use disorders: (1) Licensed Residential Care; (2) Family Care Homes; and (3) Supported Housing, which includes various sub-types. These housing options are described in detail below.

1. Licensed Residential Care Facilities

These facilities fall under the *Community Care and Assisted Living Act (CCAL Act, 2004)* and are licensed or registered by the Province to provide professional services such as intensive treatment (e.g., medication management, psychotherapy), rehabilitation, and other recovery-oriented services.

- Target population: people with SMI who are unable to live independently and/or who are in the process of acquiring the skills and confidence necessary for independent living.
- Size: 6-25 residents.
- Fees: clients pay standard residential care user fee per diem (\$28.80).
- 24-hour care and support is provided on-site including nursing staff 8-12 hours per day.
- On-site supports: psychosocial rehabilitation (e.g., assistance with personal care, home/money management, socialization), medication administration, and linkage with external services such as supported education, supported employment, clubhouse activities, etc.
- May be a “stepping stone” towards more independent housing for some clients, while long-term for others.
- Overall services are coordinated through a health authority mental health case manager linked with a mental health centre.

2. Family Care Homes

- Privately owned homes operated by a family or individual.
- Homes are not licensed or registered but must meet standards set by the health authority
- Target population: people with SMI who are unable to live independently and who require support within a family setting to acquire the skills and confidence necessary for independent living.
- Size: maximum of two clients per home.
- Fees: clients pay standard residential user fee per diem (\$28.80).
- On-site supports: room and board, assistance with personal care, home/money management, socialization, medication administration and linkage with external services such as supported education, supported employment, clubhouse activities, etc.
- For some residents, family care homes are a “stepping stone” towards more independent housing, while for others their stay is long-term.

- Overall services are coordinated through a mental health case manager linked with a mental health centre.

3. Supported Housing

Affordable accommodation is paired with a range of home support services such as assistance with meal preparation, personal care, home management, medication support, socialization, and crisis management.

Target population: people with SAMI who are able to live independently with access to housing support and case management services, appropriate to their degree of disability.

a. Supported Apartments

i. Satellite apartments/mobile homes

- Self-contained subsidized private market apartments/mobile homes, usually one-bedroom units, governed by the *Residential Tenancy Act*.
- Clients pay reduced rent based on income (max. 35% of income). Either the health authority or BC Housing provides a rent subsidy.
- Off-site home support and MHA services are coordinated through a mental health case manager.
- Client stay usually long-term (over two years).
- Example: Supported Independent Living Program (SILP).

ii. Block apartments

- Subsidized self-contained one-bedroom apartments governed by the *Residential Tenancy Act*; all units are occupied by persons with mental disorders.
- BC Housing administers capital funding/maintenance of the facility; clients pay reduced rent based on income (max 35% of income).
- On-site or off-site home support provided by non-profit agency
- Home Support and MHA services coordinated through mental health case managers.
- Client stay usually long-term (over two years).
- Examples.: Swift House and the Pandora Facility in Victoria with a total of 58 units.

iii. Congregate housing

- Bachelor suites, governed by *Residential Tenancy Act*; all units are occupied by persons with mental disorders.
- Communal food services provided on site.
- BC Housing administers capital funding/maintenance of the facility; clients pay reduced rent based on income (max 35% of income).
- On-site home support services provided by non-profit agency
- Home support and MHA services coordinated through MHA case-managers.
- Client stay usually long term (over two years).

b. Group Homes

- Clients share a communal home and participate in shared living arrangements.

- Off-site home support provided by non-profit agency
- In some cases, BC Housing administers capital funding/maintenance of the facility; in other cases, non-profit agencies purchase the building and provide low market rents. Clients pay reduced rent based on income.
- Not licensed under the *CCAL Act* (must meet standards developed by the health authority).
- Home support and MHA services coordinated through MHA case-managers.
- Client stay usually short term (under two years).
- Example: Unity Housing in Vancouver.

c. Supported Hotels

- Single room occupancy (SRO) hotels, leased or owned and managed by a non-profit agency.
- BC Housing administers capital funding/maintenance of the facility; clients pay reduced rent based on income or non-profit society rents building.
- On-site home support and supervision up to 24 hours per day by non-profit agency.
- On-site home support and MHA services coordinated through MHA case managers.
- Not licensed under the *CCAL Act* (must meet standards developed by the health authority).
- Client stay usually long-term (over two years).
- Examples: Portland Hotel, Washington Hotel, and Sunrise Hotel in Vancouver.

d. BC Housing Health Services Program

- A partnership between BC Housing and the health authorities to provide those with serious mental disorders increased access to subsidized housing through the housing portfolio of BC Housing.
- Health Services Coordinators, such as registered psychiatric nurses, co-located in regional BC Housing District Offices throughout BC, assist mental health clients in providing direct access to subsidized housing, link tenants to community MHA treatment and support services and facilitate education sessions for housing providers.
- Off-site home support and MHA services are coordinated through MHA case managers.

e. Low Barrier Housing

Functions as a safety net for individuals who cannot access or maintain housing in market, subsidized, or mainstream supported housing. Incorporates a harm reduction approach to substance use.

i. Low-level support

- Clients typically have active yet moderate addictions, untreated mental illness, and physical health issues related to homelessness and substance use.
- Ideally the support provider is also the housing provider, although many successful partnerships have developed between support providers and specialized housing providers.
- Programs need to be embedded in a continuum that allows priority access to “next step” housing.
- Minimum of one staff shift 7 days per week; overnight and/or additional staffing may be required if dealers, etc. disrupt the building community.
- Medications can be administered via an on-site program, external delivery, or nearby site.

- On-site support for daily living and employment skills as well as off-site professional case managers.

ii. High-level support

- Clients typically have complex health issues: active and severe addictions, untreated mental illness, and multiple physical health problems. Disruptive behaviours cause significant public disorder and challenges to housing providers.
- Require a specifically tailored access and referral process; outreach is necessary to engage clients and bring them into housing.
- Given the likelihood of extreme behaviours, the support provider should also be the housing provider
- Minimum two staff on duty 24/7
- On-site medication management is recommended given clients' chaotic lifestyle and ambivalence about medication use; on-site needle exchange is also recommended.
- Psychiatric, medical and case management services must be hard-targeted to the building via an assertive outreach model.

Appendix B: Mental Health and Addictions Continuum of Community Services – Definitions

(Developed by the Ministry of Health, Mental Health and Addictions Branch, Performance Management and Improvement Division, March, 2007)

All services and supports must capture the developmental, gender and cultural needs of the diverse population of British Columbia.

Health Promotion

Initiatives that support individuals to engage in safer and healthier lifestyles, and which create supportive environments, strengthen community action, and develop personal health and coping skills. These initiatives create conditions that make the healthy choice the easy choice.

Mental Health Promotion

Initiatives that support individuals, families, and communities to take control over their lives and improve their mental health, recognizing that mental health is inextricably linked to their relationship with others, environmental and lifestyle factors, and the degree of control they can exert over their lives. These initiatives include mental health literacy, and vehicles for information sharing to address levels of literacy, communication barriers (including language and sensory barriers), and geographic and technological barriers to access to information.

Prevention Services

Primary Prevention

Initiatives that provide information on mental health, and harms associated with substance abuse, including education and support through awareness of community resources that facilitate resiliency, positive choices and effective coping skills to enhance problem solving.

- **Universal Prevention** – Initiatives targeted to the whole population to strengthen protective factors to build resiliency, reduce risks among populations and mitigate potential threats to health, and support healthy lifestyle choices.
- **Selective Prevention** – Initiatives targeted to individuals or subgroups of population with increased risk of developing a mental or substance use disorder in order to prevent or delay development of the disorder by altering the susceptibility or reducing the exposure for susceptible individuals.

Secondary Prevention

Initiatives targeted to early detection and treatment of disorders, targeting individuals exhibiting early signs or symptoms of a mental disorder or problematic substance use, or experiencing a first episode of an illness. Treatment interventions are intended to reduce severity and shorten course of the illness, limit disability and

promote optimal functioning and reduce harms associated with substance use. Secondary prevention includes supports for relapse prevention, or lapses experienced when taking a harm reduction approach.

- **Indicated Prevention** – Initiatives targeted to high-risk individuals showing minimal signs and symptoms of a mental and/or substance use disorder, or whose biological, social, and/or environmental markers indicate predisposition.

Tertiary Prevention

Initiatives targeted to alleviate or limit disability resulting from illness, reduction of co-morbidity and rehabilitation/restoration of effective function.

Harm Reduction Services

Harm reduction is secondary and tertiary prevention that seeks to lessen the harms associated with high-risk behaviours, impulse control, and substance use (without requiring abstinence). These services and supports reduce the negative impacts of behaviours, alcohol and other drug use, including injury prevention, preventing sexual abuse or exploitation, and reducing the spread of infectious disease. Initiatives include needle-exchange programs and supervised injection sites to reduce the spread of communicable diseases such as HIV, Hep B and C, and drug overdoses. Other services provide practical solutions such as education on impulse control, as well as substance use and helping individuals who use substances to address important health concerns such as nutrition, hygiene, or immediate physical health problems such as wound abscesses, and safe housing options.

Outreach and Early Intervention Services

Outreach Services

Services designed to contact, engage and link children, youth and adults who are at risk of developing mental disorders, or known to have or be at risk of having substance use problems, to treatment and support systems. Services include street-outreach, school-based outreach programs, and a combination of telephone and face-to-face outreach services.

Early Intervention Services

Early intervention services include the following: identification and referral early in the course of illness; rapid response to the referral; development of long lasting therapeutic alliance; prompt initiation of suitable treatment; and provision of relapse prevention services that lead to better short and longer term outcomes. Early intervention services are linked to a full range of biopsychosocial treatment and recovery services.

Early Psychosis Intervention Programs

Early Psychosis Intervention (EPI) Programs serve young people with early psychosis, usually between the ages of 13 and 35 years, and their families. These programs bridge youth and adult mental health services, and link community with hospital. The programs are community-based and devote much effort to early detection and rapid assessment. Clinical services include single-entry intake and assessment, as well as treatment for people who have had their first episode of psychosis, including schizophrenia and severe depression with psychotic symptoms. Treatment components include individual, group and family intervention. Other program components include community education, evaluation, and research, as well as assessment and monitoring for young people at high risk of developing psychosis.

Crisis Response and Stabilization Services

Community crisis response and emergency services include services for individuals and families that are available 24 hours a day, seven days a week, and offer short-term interventions including assessment, stabilization, and referral for follow-up services. These services provide a safe, supportive environment to assist individuals in managing their immediate crisis and continue ongoing treatment. Crisis stabilization services are relevant to clients involved in outreach, case management, withdrawal management and treatment. Crisis response services include the following services:

- **Crisis/Warm Line:** A telephone service provided by a trained volunteer or consumer which delivers immediate support to individuals in need by means of active listening or referral to health and social services.
- **Mobile Crisis Response Services:** A service in which first line responders provide outreach to individuals in the community experiencing an acute mental health crisis.
- **Walk-in Crisis Stabilization Services:** A service where individuals can walk-in and receive assessment, stabilization support and access to follow-up services.
- **Emergency Shelter/Transition Housing:** Short-term residential support for basic needs (food and shelter) in a safe and secure setting for individuals and families during periods of crisis.
- **Community Crisis Residential Stabilization Services:** Services include crisis response and stabilization in a short-term residential setting.

Treatment and Self-Management with Supports

Inpatient Treatment Services

Services include assessment, diagnosis, treatment, stabilization and short-term rehabilitation of people with serious mental illnesses admitted voluntarily or involuntarily to a hospital psychiatric unit, which often entails emergency psychiatric care.

Primary Care Services

Health care services provided by physicians, nurse practitioners and other health service providers within a primary care setting for children, youth and adults experiencing mental health problems, problematic substance use, including symptoms of mental and/or substance use disorder, and other co-occurring medical conditions. Families are included in the treatment plan.

Shared Care Services

Services include mental health and addictions service providers and primary care providers sharing responsibility for mental health and addictions care of individuals and families. There are a variety of ways in which care is shared, including integrating mental health and addictions services in primary care settings, holding joint clinic and educational rounds, educational programs for primary care providers in managing mental and substance use disorders, as well as models of collaborative care where mental health and addictions specialists can support rural and remote primary care settings.

Tele-Mental Health and Addictions Services

Services include assessment, education and consultation for the diagnosis and treatment of mental and substance use disorders through the use of tele-video conferencing.

Withdrawal Management Services

Withdrawal management services support individuals through acute stages of withdrawal from alcohol or other drugs. These services may be inpatient/residential detox services or outpatient services such as daytox or home detox with professional supports.

Case Management Services

Mental health and addictions case management services include a wide variety of functions, including client finding, screening, assessment, treatment, psycho-social education, referral services, coordination of client's care, self management support, relapse prevention, crisis management, and ongoing support. Not all case management approaches encompass all these functions. The following are three common approaches to case management:

- **Brokerage Case Management Service:** The primary focus of this service is on screening, assessments, referring clients to appropriate services, coordination of services and ongoing support.
- **Clinical Case Management Services:** Services include client finding, screening, assessment, treatment, psycho-social education, referral services, coordination of client's care, self-management support, relapse prevention, crisis management and ongoing support.

Assertive Community Treatment (ACT)

A service delivery model that provides flexible, comprehensive services to individuals with mental illness and/or addiction and who have multiple complex needs. ACT is distinct from the above case management approaches in its key components, which include a low client-to-staff ratio, operating after hours and weekends, multidisciplinary team approach, client-directed delivery of care, assertive outreach and continuous services.

Acute Mental Health Home Community Treatment Services

Services that are alternative to acute care hospitalization for acute psychiatric illness and include the following services in "Home" and community residential settings:

- **Acute Mental Health Home Treatment Services:** Services include crisis intervention and management of acute symptoms, establishing a medication regime requiring close monitoring and/or education in managing acute illness and medications, developing a treatment plan and ensuring follow-up linkages are in place. "Home" includes the individual's or family home, family care homes and Supported Independent Living Program (SILP) units.
- **Acute Mental Health Community Residential Treatment Services:** Licensed facilities under the Community Care and Assisted Living Act, designated to provide short-term assessment, treatment and intervention services and access to follow-up services.

Eating Disorders / Disordered Eating Services (Programs)

These programs serve youth and adults with eating disorders, primarily anorexia nervosa and bulimia nervosa. Depending on the severity of the disorders, services include:

- community psychological and psychiatric interventions, including group counselling and support groups, individual counselling and family counselling;
- consumer and family education and informational sessions about recovering from eating disorders;

- hospitalization to initiate renourishment, increase body weight, and promote medical stabilization, when eating disorders are severe / life threatening.

Perinatal Mental Health Services

Perinatal (and Reproductive) Mental Health and Addiction Services include screening and diagnosis, individual and group counseling, cognitive behavioural therapy, and related treatment services for women experiencing, or at risk for, perinatal anxiety, depression, and other mental disorders and addictions. Services also include assisting women in accessing coping and support networks. Treatments, including pharmacotherapy, take into consideration the safety of the mother and infant.

Specialized Psycho-Geriatric Assessment and Treatment Services

Specialized geriatric outreach services for the elderly with dementia, and other mental or substance use disorder, provided by a multidisciplinary team and includes specialized comprehensive assessments, competency assessments, pharmacological and psychosocial treatment, including recommendations for home care and environmental adaptations, referral services and service coordination. Psycho-social education and consultation is also provided to care providers.

Specialized Mental Health and Addictions Services for People with Developmental Disabilities

Specialized mental health and addictions services for individuals with developmental disability and mental disorder, provided by a multidisciplinary team and includes specialized comprehensive assessments, pharmacological and psychosocial treatment, and consultation with community care providers and families regarding functional impairments, symptoms, relapse prevention, challenging behaviours and other complex needs.

Outpatient Services

Services can be office-based or provided in the home and can be short-term or longer-term. Services include outreach, medical consultation, assessment, referral, education sessions, as well as individual, group and family counselling/therapy and case management.

Day Programs/Intensive Day Treatment Services

Structured individual, group and family mental health and addictions treatment services for individuals with a mental and/or substance use disorder. These programs support individuals who have complex needs to receive treatment and support.

Gender-specific Mental Health and Addictions Services

Services include assessment, referral, education, as well as individual, couple and family counseling/therapy for women or men with a mental and/or substance use disorder, as well as co-occurring health problems.

Lesbian, Gay, Bisexual and Transgender Services

Services include assessment, referral, education, as well as individual, couple and family counseling/therapy for lesbians, gay men, bisexual and transgender persons, and their partners and families. The team of staff include "out" gay and lesbian therapists.

Multi-Cultural Services

Multi-cultural mental health and addictions liaison services provide appropriate multilingual, culturally and spiritually sensitive mental health and addiction services. They bridge cultural gaps and often focus on how social networks can support individual and group counseling services, and other treatment services. Multi-cultural services respect the value that many Asian, African and Aboriginal philosophies place on balance and harmony, appreciating how spiritual, emotional, physical, and social elements work together to support mental health.

Aboriginal Services

Aboriginal culturally sensitive mental health and addictions programs provide individual and group counselling, aboriginal liaison services, life skills, Aboriginal family systems awareness, treatment deeply rooted in tradition, spirituality and physical/mental balance, healing circles, cleansing ceremonies, (traditional) teachings from elders, and traditional feasts.

Methadone-Maintenance Treatment Program

Services that prescribe and dispense methadone as an opioid replacement therapy. Methadone is prescribed by community physicians who have received special training and authorization to prescribe, and is dispensed by community pharmacists who are authorized to dispense narcotics.

Short-term Addictions Residential Treatment

Addictions treatment provided in a safe, structured, and substance-free living environment for individuals up to 30 days. Treatment includes assessment, education, structured individual, group and family counseling/therapy.

Neuropsychiatry Services

Services include counselling, education, medication, safety and risk assessments, and, depending on the severity and complexity of the medical conditions, radiology investigations such as MRI and CAT Scans and neuropsychological testing.

Family Support Services

A wide variety of services and supports including, self management support, counseling, psycho-social education, supporting partnerships among families, consumers and health care professionals in treatment plans, training opportunities, resources to support self-help and peer-to-peer support. Family support includes respite care, which is temporary, short-term care, designed to give relief or support to a family caregiver who has the responsibility for the ongoing care of a family member. Respite can be provided inside or outside the home.

Residential Historical Abuse Program (RHAP)

RHAP is a specialized counselling program that serves adult survivors of child sexual abuses that occurred while clients were children and residing in provincial government operated or supported foster homes, group homes, and/or larger residential settings supported by the province. Many clients have experienced symptoms of post-traumatic stress disorder (PTSD) and other concurrent mental illnesses and addictions, associated with childhood sexual abuses. Services include individual and group counseling for these disorders. RHAP does not serve former residents of Residential Schools, which were funded or operated through the federal government, churches, or other agencies not associated with the province.)

Psychosocial Rehabilitation Services

Psychosocial rehabilitation services include the following services:

- **Personal Life Skills Services** Services include specialized functional assessments, illness education (psycho-social education), personal care (e.g. grooming assistance), home management (e.g. meal preparation), home and community safety, community living support (e.g. shopping, transportation, financial management), medication monitoring, communication and interpersonal relationships support, guidance regarding sexuality and avoidance of high-risk behaviours, health programs (walking, exercising, smoking cessation and weight loss) and referral services bridging to local community resources.
- **Employment Support Services** Services include specialized assessments, career planning, pre-vocational skills training, transitional employment services, supported employment services, work experience, self-employment support and consumer-run businesses or co-operatives.
- **Supported Volunteer Services** include a range of support services to assist individuals to prepare for, obtain and maintain community volunteer placement positions.
- **Therapeutic Volunteer Program (TVP)** This program provides clients who are unable to enter vocational or supported education programs with financial incentives and supports to cover the costs associated with placement in a community volunteer position.
- **Peer Support Services** Services provided by trained clients to provide social and recreational companionship and personal life skills services, including peer-to-peer education to other clients. Peer support services are coordinated within a formal structure linked to the treatment team.
- **Leisure Support Services** Services include specialized assessments and supports to identify interests, skills and abilities and encourage individuals to access and participate in active and passive leisure activities. Services include both individual and group leisure activities.
- **Club House** Club-House is a membership driven drop-in and vocational program. Individuals and staff work side-by-side to manage all aspects of the operation of the Clubhouse, including clerical services, food services, program activities and outreach services. Some Clubhouses provide on-site supported employment and work experiences.
- **Drop-In Centre** A Drop-In Centre is a place where individuals can drop in, usually 5-7 days a week, including after hours. Services include screening, assessment, referral services to local community resources, such as mental health and addictions services, housing and support services, vocational and employment and income support services. Some programs provide onsite meals, outreach services and social activities.
- **Education Support Services** Supported education includes specialized assessments, assistance, special adaptations and support for individuals to access, pursue and maintain educational opportunities.
- **System Advocacy Services** Services include assistance to individuals to deal with barriers to access income support, housing and support services, education, employment support, mental health and addictions services and other health and community support services.

Intensive, Long-term Rehabilitation and Support

Long-term Addictions Residential Treatment

Addictions treatment provided in a safe, structured, and substance-free living environment for between 30 and 90 days. Treatment includes assessment, education, structured individual, group and family counseling/therapy, case management, community reintegration and linkages to after-care follow-up.

Concurrent Disorder Addictions Residential Treatment

Treatment for individuals with concurrent mental and substance use disorders, within a safe, structured, and substance-free living environment up to six months. Treatment includes assessment, education, structured individual, group and family counseling/therapy, psychosocial rehabilitation, case management, community reintegration and linkages to after-care follow-up.

Support Recovery Homes

A temporary residential setting providing safe housing and a basic level of support appropriate for longer-term recovery from addiction. Individuals access outpatient and other community treatment services and supports.

Adult Forensic Psychiatric Services

Services for adults in conflict with the law that include specialized assessment, mental health and addictions treatment, including court liaison services through the forensic psychiatric hospital and regional forensic clinics.

Youth Forensic and Justice Programs

Services for youth in conflict with the law that include specialized assessment and mental health and addictions treatment services established specifically for young offenders. The Youth Substance Abuse Management Program is a cognitive skill-based education and treatment readiness program for youth in custody centres and in community-based locations. Youth addictions counselors are available at youth custody centres. Youth serving a community sentence receive addictions treatment through community-based residential programs for youth.

Criminal Justice Diversion Services

A variety of diversion services such as mental health and addictions court liaison services, forensic liaison services, correctional facility liaison services and police diversion services. These services prevent clients who are at a high risk from entering the criminal justice system.

Tertiary Psychiatric Services

Services include the following three types of specialized assessment and treatment for individuals with a mental disorder who require multidisciplinary expertise and consultation to meet the complex needs related to the mental disorder:

- acute tertiary services, which provide short-term assessment and treatment
- rehabilitation tertiary services, which provide long term treatment and rehabilitation
- specialized residential treatment care, which provides specialized community residential facilities serving people discharged from acute and rehabilitation tertiary services.

Appendix C: CMHA-BC Division List of Key Informants by Health Authority

Vancouver Coastal

Lilloet:

- Interior Mental Health, mental health therapist

Powell River:

- Sliammon First Nation
- Interior Mental Health, Community Mental Health Nurse
- Salvation Army, Captain

Sechelt:

- Arrowhead Centre Society, President of society and Manager of the cold weather shelter

Squamish:

- CMHA/ Sea to Sky Community Services Society, Outreach Worker
- Crisis Stabilization Unit, Coordinator

Whistler:

- CMHA, Outreach Worker
- Sea to Sky Community Services Society, Family Preservation Worker
- Whistler Community Services, Community Outreach Worker

Vancouver Island

Campbell River:

- M'akola Native Housing Society, Social Worker
- Ocean Crest Emergency Shelter, Director of Emergency Services
- Campbell River Food Bank
- Island JADE Society, Executive Director/ Senior Advocate
- Beacon Clubhouse

Courtenay:

- Comox Indian Band, Social Development Administrator
- Wachiy Friendship Centre, Homeless Counselor
- Salvation Army
- Helen Boyd, Counselor and Author of Comox Valley Homeless and Housing Survey

- Level One Response Team Coordinator Comox Valley, Emergency Social Services, Interagency Liaison, Canadian Red Cross, Street Outreach Program
- St George's Pantry, Volunteer

Duncan:

- M'akola Native Housing Society, Office Coordinator
- Hiiye'yu Lelum House of Friendship Society, Outreach Worker
- Social Planning Cowichan, Chair
- CMHA-Duncan, Shelter Coordinator
- CMHA-Duncan, Outreach Coordinator
- Cowichan Valley Basket Society (food bank)
- Salvation Army's Care and Share Centre

Parksville & Qualicum Beach:

- CMHA – Port Alberni, Outreach Worker
- Salvation Army

Port Alberni:

- CMHA – Port Alberni, Outreach Worker
- Port Alberni Friendship Centre, Alcohol and Drug Counselor
- Bread of Life Food Bank

Port Hardy:

- Gwa'sala-'Nakwaxda'xw Health and Family Services, Office Manager and Case Manager
- AIDS Vancouver Island, Harm Reduction Program
- Pentecostal Church Soup Kitchen, Volunteer

North

Chetwynd:

- Tansi Friendship Centre Society, Family Health Support Worker
- Chetwynd Women's Outreach, Safe House Coordinator and Outreach worker
- Swiss Management Inn, Hostel Manager

Dawson Creek:

- Aspen Court Shelter
- Dawson Creek RCMP, Victim Services
- On Our Own Drop In Centre
- Dawson Creek Native Housing Society, Project Manager

- Salvation Army, Director

Fort Nelson:

- MCFD-Fort Nelson, Team leader
- Mental Health &Addiction, Team leader
- Fort Nelson Women's Shelter, House Manager

Fort St John:

- Fort St John Friendship Centre, Program Director
- Women's Resource Centre, Poverty Law Advocate
- Salvation Army Hostel
- Mental Health & Addiction Community Mental Health Social Worker
- Meaope Transition House, Coordinator

Houston:

- Salvation Army Food Bank
- Houston/Granisle RCMP Victim Services

Prince Rupert:

- Friendship Association of Prince Rupert, Mental Health & Addiction Liason Worker
- North Coast Community Assets, Executive Director
- Salvation Army

Quesnel:

- Quesnel Tillicum Society, Family Support Worker
- United Aboriginal Housing Society, Executive Director
- Quesnel Women's Resource Centre, Administrator & Outreach Worker
- Salvation Army Food Bank and Soup Kitchen, Captain

Smithers:

- Salvation Army, Bulkley Valley Food Bank
- Smithers Community Services Association, Executive Assistant
- Brain Injury Association – Community Food Kitchen, Homeless Coordinator (previous)
- Dze L K'ant Friendship Centre Society, HIV/AIDS Awareness Worker & Pregnancy Outreach Program Support Worker

Terrace:

- Emergency Shelter and Hostel, Outreach Worker
- Terrace Anti-Poverty Group Society, Executive Director
- The Stepping Stone Clubhouse

Interior

100 Mile House:

- MCFD, Youth Worker
- Cariboo Family Enrichment Centre, Coordinator of Homelessness Research Project
- CMHA, Outreach Worker

Cranbrook:

- Aqanttanam Housing Society, Executive Director
- Kootenay Haven Transition House, Program Coordinator
- CMHA-Kootenays, Executive Director
- BCNPHA, Researcher
- Salvation Army
- East Kootenay Addiction Services, Addictions Counsellor

Merritt:

- AIDS Society of Kamloops, Outreach Workers
- Nicola Valley & District Food Bank

Penticton:

- Salvation Army Food Bank
- Oonkane Friendship Centre, Family Support Worker
- Mental Health, Housing Facilitator

Revelstoke:

- Sustainable Community Development Consultant
- Mental Health & Addiction, Alcohol & Drug Counsellor

Vernon:

- Mental Health and Addiction, Concurrent Disorders Counsellor
- Social Planning Council for the North Okanagan, Project Coordinator, Homeless Strategy
- John Howard Society Vernon, Executive Director
- First Nations Friendship Centre, Shelter Coordinator

Williams Lake:

- CMHA, Outreach Worker
- CMHA, Executive Director
- Cariboo Friendship Centre, Social Programs Supervisor

Appendix D: Description of Low Barrier Housing

Function within the Housing System

Low barrier housing functions as a safety net for those who cannot access or maintain housing in market, subsidized or supported housing. Low barrier housing is the key housing solution to the public disorder resulting from homelessness, mental illness and substance use.

<i>Low Support</i>	<i>High Support</i>
Target Population	
<p>This group presents less problematic behaviour than the high support group, but typically is too disruptive and not sufficiently linked with health resources to be eligible for mainstream supported housing. They typically have significant health issues—active yet moderate addictions, untreated or marginally effectively treated mental illness, and physical health issues related to homelessness and substance use.</p>	<p>This group is the most disruptive and is the group that media and others refer to when describing the increasing public disorder on the streets. They typically have complex health issues: active and severe addictions, untreated or marginally effectively treated mental illness, and a host of physical health issues related to homelessness and substance use. Their survival behaviours and behaviours related to untreated mental illness are highly problematic, causing significant public order issues when homeless and significant challenges to housing providers when indoors.</p>
Access and Referral Process	
<p>Most tenants in this group can follow through a referral process, or are linked with supports that can do this for them.</p>	<p>This population requires specifically tailored access and referral processes. The units need to be “hard targeted” to people that fit the profile. That is, many people who live on the streets or cycle through shelters won’t, on their own, be able to follow a referral process, so outreach is necessary to engage them and work to bring them indoors/out of the shelter system.</p>
Type of Housing	
<p>Standard social housing units are preferred, though good SROs also work. Ideally the support provider is also the housing provider, though many successful partnerships are in place in the Vancouver’s DTES between support providers and more specialized housing providers. Often the supported tenants are successfully mixed in with a</p>	<p>Smaller units are better; good SROs are fine. The landlord needs to be highly accepting of extreme tenant behaviours, meaning that the support provider should also be the housing provider. Given the disruption caused by this group, they should not be mixed in with other populations, though they can be part of a separate program in the same building as long as they are on separate floors with separate</p>

Low Support	High Support
regular social housing tenant group.	entrances, staff, etc.
Housing Continuum and Length of Stay	
<p>Low barrier low support programs need to be embedded in a continuum that allows priority access for these tenants to “next step” housing, be it better located or a less supported low barrier unit, or access to mainstream supported housing units. However, the overall approach is that low support units are long term housing, with opportunities available for people whose recovery and independence requires a new housing environment.</p>	<p>While all low barrier programs need to be embedded in a continuum that allows priority access for these tenants to “next step” housing, this is especially crucial for high support programs. Most high support tenants will achieve significant stability of health and behaviour within six months to two years. At that point they typically want to live in a less disruptive environment, and can, in fact, live with less support in a more normalized, less crisis-oriented housing program. The principle behind this is that low barrier housing is created to handle the tenant’s worst behaviour. If this behaviour can be reduced or eliminated, the tenants become referable to less supported, less costly housing. For this reason, it makes sense to conceptualise high support programs as transitional, but not require that tenants transition if they are not ready. The advantage here is that costs are reduced when people transition out of high support units into low support units, rather than building more high support units.</p>
Special Populations	
<p>For some sub-groups you will get better outcomes from programs with characteristics tailored to their needs: for example, women, youth and aboriginal people.</p>	<p>For some sub-groups you will get better outcomes from programs customized for the unique needs of a particular group: for example, women, youth and aboriginal people.</p>
Size	
<p>Depends on the severity of tenant issues, but generally no more than 30, though you can go higher by adding more staff. Mixed population buildings (i.e. a blend of supported/unsupported tenants) can have more total units—60-80.</p>	<p>25 to 30 units is ideal; can be in the 40 to 50 range with appropriate increases in staffing levels; any more than this and there is too much crisis for the program to function effectively.</p>
Staffing	
<p>Minimum one shift seven days per week; add staff in the evening hours if the group gets more challenging and requires the need for crisis intervention and supports. Add overnight staff if dealers, etc. are active and will target the tenants</p>	<p>Minimum two staff on duty 24/7 for projects of less than 30 units. Add more day and afternoon staff as the number of units climb into the 40s.</p>

Low Support	High Support
and disrupt the building community.	
Cost	
Per diems can be as low as \$12-15 in a partnership model with reasonably stable tenants. If overnight staffing is required then the per diems increase to \$25-30, depending on the number of tenants. This only includes on-site staff—no professional descriptions.	For this most difficult group, per diems should range from \$50-70, with \$70 being the high range in smaller niche programs (women, youth, aboriginal), and \$50 in larger building with a more generalist approach. This only includes on-site staff—no professional descriptions
SERVICE COMPONENTS	
Medication Supports	
Many of this group will require medications for physical or mental health conditions; medications can be administered via an on-site program, external delivery program or nearby administration site (drop-in, shelter, etc).	Many of this group will require medications for physical or mental health conditions; on-site administration is highly recommended due to chaotic lifestyle and tenant ambivalence about medication use.
Meal Support	
Some tenants will need a meal program, some not. It works well to have an off-site, low-cost meal program available nearby, or via delivery.	Most tenants will not eat properly, due to substance use, skills, and lifestyle issues. An on-site meal service is the best option for ensuring people are getting proper nutrition, though it is also expensive. But this tenant group often gets barred from low-cost meal services, or simply won't pay and then will go days without a proper meal.
Financial Administration	
Many tenants will have their finances administered. This is best done via an external service but can be done on-site.	Many tenants will have their finances administered. This is best provided via an external service but can also be provided on-site.
Needle Exchange	
Some tenants may use IV substances; needles should be available on-site, whether via a formal exchange or via a more individualized approach.	Many tenants will use IV substances; a formal on-site exchange is the best able to respond to the daily needs of the tenant group.
Individualized Service Plans	
In low support projects, there remain significant issues in many life domains that need to be addressed via on-site supports and off-site professional case managers. While many tenants	High support tenants present with acute issues in many life domains, with complex, poorly treated health issues and problematic behaviour at the forefront. To create housing and health stability

Low Support	High Support
<p>require minimal on-going interventions, many others require substantive interventions and monitoring to maintain their health and housing.</p>	<p>requires significant individualized problem-solving on the part of on-site support and off-site professionals.</p>
Community Building	
<p>One the strongest markers of chronic homelessness is social exclusion, resulting in people being acculturated into street involved ways of living. Low barrier housing provides an alternative community that is the “next step” in safety, support and opportunity.</p>	<p>One the strongest markers of chronic homelessness is social exclusion, resulting in people being acculturated into street involved ways of living. Low barrier housing provides an alternative community that is the “next step” in safety, support and opportunity. For high support units this is particularly crucial, as tenants will stay entrenched in street-involved ways of living in the absence of compelling, meaningful alternative ways of enjoying themselves.</p>
Education, Employment, Volunteer	
<p>A significant number of this group will pursue education, employment and volunteer activities, and this will be a significant part of moving beyond risk of homelessness. Services for these activities are external, though on-site supports will support and problem-solve participation issues.</p>	<p>Most tenants are not interested in education, employment or volunteer activities at this point. But some are, and these needs to be supported, as it can play a key role in generating positive change. This often takes the form of a low barrier volunteer or employment activity that places few demands on the tenant.</p>
PARTNERSHIPS	
Health Partnerships	
<p>Most tenants in low support housing will receive adequate care from mainstream health services; some will not, requiring some ability for health services to come into a building and engage the tenants.</p>	<p>Typically, tenants in this group have had numerous opportunities to access health resources and yet their health outcomes are extremely poor. To improve health outcomes, health services need to be: hard targeted to the buildings that house this group, otherwise the group’s difficulties discourage health providers from actively taking responsibility for this group. Delivered via an outreach model, including psychiatric, medical and case management services.</p>
Police Partnership	
<p>A significant proportion of the tenants will use illicit substances and there will be disruptions that require regular police intervention. Police should be notified of the program and the housing provider should initiate communication to ensure</p>	<p>Most if not all of the tenants will use illicit substances and there will be regular disruptions that require police intervention. Police should be engaged in the start-up phase and be an active partner in the on-going operation of the programs. Police need to be</p>

Low Support	High Support
that both parties understand what to expect of one another.	engaged as partners. Ideally, they understand the program, what it is trying to achieve, what its limitations are, and the role of the police in achieving these outcomes.

SERVICE MODEL

Recovery Orientation: many people make significant changes to their lives when given appropriate, meaningful opportunities. Change and recovery should be expected and supported including opportunities move forward out of low barrier housing and communities.

Harm Reduction: low barrier housing needs to meet clients where they are and reduce harm whenever possible.

Strengths Orientation: chronically homeless people are typically defined by a list of pathologies and deficits, when in reality they have remarkable strengths and resiliencies. A strengths orientation encourages tenants to determine their own meaning and goals, increasing motivation and independence.

Motivational Interviewing: change that is motivated by coercive interventions rarely lasts. Motivational interviewing provides a framework for working with people that encourages more lasting change on their terms.

Source: Greg Richmond, Triage Emergency Services, Vancouver BC

Appendix E: Examples of UK Housing Approaches

Source: Boyle, K and Jenkins, (2003).

Group Homes

The most common form of supported housing for clients with mental health needs is shared housing within a group home. These were developed in large numbers during the 1980s and early 1990s by housing associations, with capital funding from both mainstream social housing grants or from health funds, and were linked to the closure of long-stay mental health hospitals. The accommodation usually consists of a number of individual bedrooms, with shared kitchens, lounges and bathrooms. In a minority of schemes, there may also be some shared bedrooms, although these have largely been phased out. The number of clients varies but schemes are usually designed for between four and seven people. Some of these schemes will have been registered, dependent on the client group and revenue funding arrangements. The remaining “homes for life” provision is usually within this type of scheme. Group homes have been a relatively inexpensive means of providing accommodation, and some were developed with specific users in mind, often from pre-identified peer or friendship groups from within the hospital. As the specific clients have changed and as clients' views of acceptable standards have increased, this form of provision has become less acceptable and less popular. In practice, this has meant that many schemes are now viewed as interim housing, rather than permanent provision. The actual length of stay of a client is closely linked both to their own care needs and to the availability of suitable self-contained permanent housing in the area. In recent years, key changes within these schemes include: single occupancy only, more use as medium-term housing, older, poorer schemes closing, change of use to provide for ethnic and/or gender-specific housing for shorter periods of occupancy, and de-registration to provide more flexible services – a process increasing under the new Supporting People funding arrangements.

Cluster Flats

More recent developments have tended to provide either cluster-type accommodation (similar to student housing) or self-contained flats, often grouped together in a specific building or, less often, within a larger development. Rooms are ensuite or bedsitter flats, sharing some communal facilities. This is an updated version of the group home and provides a more acceptable form of shared housing.

Grouped Flats

Increasingly, providers have sought to balance the preference for self-contained accommodation with the need for revenue efficiencies and the potential for peer support, by developing a number of self-contained flats within a single building or adjacent buildings, and providing a unified management and support service for the units as a single entity. In the main, this type of housing is viewed as permanent, but this model is also used for shorter-term provision. This type of accommodation may or may not have some form of communal space – for example, an office or shared space linked to training programs as part of the support service. This provision has proved popular with clients, but in some areas has met resistance from local communities concerned with the growth of people with “problematic” special needs being placed in their areas.

Dispersed Schemes

A number of support agencies have entered into agreements with landlords (both housing associations and local authorities) to lease or manage a number of specific housing units to which social services will nominate clients with mental health needs. The agency will then provide a housing support service across these units. These have often been relatively hard-to-let housing units, or are properties with a limited life. The limitation of these schemes is that the support is linked to the housing unit rather than the individual, but this form of support service has been invaluable in moving away from seeing mental health provision as needing to take the form of some kind of clustered arrangement, separate from mainstream communities, and this has been the basis of developing floating support schemes.

Floating Support

Support to individuals in their own homes, rather than to residents of specified housing, is commonly referred to as “floating support”, and is one of the major areas of growth within supported housing. All local authority areas have increased their provision of floating support in recent years, and the advent of Supporting People will allow this form of support service to increase further. Support is tailored to the needs of the individual as far as possible, although contracts with purchasers tend to be for relatively set levels of support determined by the time allowed for client contact. In some areas, housing support workers are now being included within community mental health teams and assertive outreach teams. Harrow is one example of home-based support through multi-disciplinary team working, incorporating housing workers. This approach is likely to increase in the future as a logical method of providing a whole systems-based service to clients.

Crisis Intervention

The development of crisis intervention housing models is limited, with a small number of schemes nationally and schemes in London within Islington and Hackney. Two of the London schemes were part of a recent assessment by the Sainsbury Centre for Mental Health and the Mental Health Foundation (SCMH/MHF 2002) and have been highly praised for the overall service they provide, the highly positive response of clients, their cost effectiveness and the decisions to focus on groups for which there are limited specific housing schemes. Two examples are a women-only scheme in Islington that also offers accommodation for mothers and children, and an African-Caribbean scheme in Hackney. The schemes are emphatic demonstrations of fast, effective, responsive services, based within the community, to periods of crisis that would otherwise necessitate hospitalisation. Robust and effective partnerships working across a range of agencies is necessary and has been demonstrated to work well. Some schemes also provide 24-hour drop-in services to non-residents, again as part of the National Service Framework agenda, although the service in the Highbury scheme in Islington is now restricted to registered users. The length of stay within these schemes varies from two to six weeks, although some schemes are now increasing this period to the upper end of this scale. This model was highlighted within the NSF, and evidence would show that this option is highly thought of by clients. By locating the schemes in relatively central parts of the community, there are possibilities for economically developing this type of provision, linked to community mental health teams and assertive outreach teams, and incorporating 24-hour resource centres, as well as other primary care facilities within a single site.

Safe Havens

To address the needs of those outside of the system, the concept of assertive outreach was established in the same period as was, lesser known in the UK, the housing model referred to as safe havens. The physical

form of these safe havens varies considerably, but the service objectives are shared. These are: to provide easily accessible housing without time-limited stays, primarily to street homeless, to focus on clients outside the system, including people with dual diagnosis, to deploy multi-disciplinary, multi-skilled teams to address mental health drug/substance use, employment, and life skills. Local models have developed across the United States, but the core focus has been maintained and the schemes are regarded as highly successful in working with a client group that often remained outside the care and support system.

Appendix F: Ten-Year Plans to End Homelessness in Selected US Cities

Hartford, Connecticut

The Hartford Continuum of Care estimates that there are 322 chronically homeless individuals (240 sheltered and 82 unsheltered) in Hartford. Hartford's Plan to End Chronic Homelessness by 2015 identifies "gridlock in treatment systems," prison releases, termination of benefits, and high housing costs factors that contribute to an increasing chronically homeless population. Hartford took a regional approach, addressing homelessness by working with surrounding communities. The plan focuses on permanent supportive and affordable housing, calling for 2,133 units to be built in the Capitol Region over 10 years. Half of the units will serve long-term individuals and families half of the long-term housing units will be built in Hartford proper. Linking housing with services is critical for communities serving chronically homeless people.

The plan calls for better discharge planning and the active prevention of "graduating" people into homelessness, whether from prison or foster care. Enhanced data collection through continued support for the development and implementation of information management systems is integral to Hartford's plan to end chronic homelessness in 10 years. This involves identifying both chronically homeless and those at risk of becoming chronically homeless. Increasing attention to data collection will allow Hartford's Chamber of Commerce to understand the needs of the chronic homeless, target funds appropriately to address the needs of the chronic homeless, and track their progress in reducing chronic homeless. The HMIS will be reviewed on a quarterly basis to ensure high-quality data collection. As a benchmark for utilization, Hartford declared that by September 2006 all service providers, including emergency shelters, supportive housing, and transitional housing facilities, would have entered data on at least 80% of their beds.

Denver, Colorado

The Ten Year Plan to End Homelessness was formally introduced in May 2005. Extensive research of the homeless population in Denver provided the information necessary to develop a unique plan that addresses the need of homeless people in the area. Denver's strategy consists of eight different goals. Within each goal the plan outlines specific benchmarks serving as year-to-year guidelines and defining successful implementation.

- Goal 1 is to increase permanent housing available to those at or below 30% AMI and to expand temporary housing to provide a safety net while the new housing stock is put into place. Denver aims to produce 94 new housing units with supportive services per year, thus reducing chronic homelessness by 75% in the first five years.
- Goal 2 is to provide safe and legal shelter to those who have recently become homeless, targeting 135 new shelter beds in Year 1.
- Goal 3 addresses prevention through increased resources for support services such as credit counselling, rental fee waivers, and foreclosure prevention assistance.
- Goals 4 and 6 target specific needs of homeless and at-risk clients, committing to providing better access to support services such as transportation and mental health care, as well as education, training, and employment

services to promote long-term stability. The plan includes developing 580 employment opportunities in the 10-year period for homeless and formerly homeless persons.

- Public Safety, street outreach to homeless, and increasing community awareness are addressed in Goals 5 and 7, calling for increased coordination with governmental and non-governmental agencies dedicated to ending homelessness.
- Goal 8 of the plan calls for collaborating with local housing developers, funding agencies, and officials to review existing housing codes and to identify changes to facilitate the construction of permanent affordable units. The plan calls for a reformation of their zoning codes to allow currently large shelters to continually operate at overflow status. This increases the capacity up to 350 beds, expanding the amount of people who can be served without suspending the zoning ordinance for shelters. Further, the plan calls for an expansion of the zoning code, to allow shelters in mixed- use districts to ensure adequate space for all persons in need during the construction of permanent housing units.

Source: The Ten Year Plan to End Homelessness, a report to the citizens of Denver by the Denver Commission to End Homelessness

Grand Rapids, Michigan

Grand Rapids, Michigan packages their plan action steps into three principles: close the front door, open the back door, and build the infrastructure.

Close the Front Door. Grand Rapids will target prevention through a coordinated application form for benefits requested through various public assistance programs. A housing assistance revolving pool will allow the continuum to resolve minor issues such as late rent, mortgage, or utility payments before the eviction process begins. To help curb eviction before it starts, the plan calls for developing landlord-tenant education and information sessions. The plan also intends to broaden the central intake system to increase the population served and enhance the services for prevention and placement in permanent housing. System coordination will be managed through a specialist directly responsible for discharge planning for prison/jail, foster care graduates, and those leaving mental/physical health institutions.

Open the Back Door. Emergency shelter use will be dramatically decreased. In order to address emergencies, Grand Rapids intends on providing a brief, interim housing with a goal of rapid placement and long-term success. For example, the short-term crisis shelter option will be interim housing for 1 to 90 days, ending as soon as a permanent unit is found for the homeless person/persons. Wraparound services will also be provided with the permanent housing as needed. Thorough screening for housing readiness will help to gauge how ready one is for housing and to enable the tailoring of services to the needs of the client. Whenever possible, clients will be given a choice of housing where affordable ownership and rental options will be provided with supportive services as needed.

Building the infrastructure involves expediting access to mainstream resources, and funding a pool for those awaiting public benefits. Data collection will be used to inform community planning efforts around the provision of housing. In the next few years, Grand Rapids intends to gather their baseline data regarding current affordable housing stock, the affordable housing needed, and the number of people who are at risk of homelessness in the region. Funding allocations will be informed by a broad cost/benefit analysis of the data collected and analyzed.

Source: Vision to End Homelessness, Grand Rapids Area Housing Continuum of Care

Contra Costa County, California

For the past 20 years, Contra Costa has been addressing homelessness through comprehensive, countywide initiatives involving 96 housing and service organizations in the area, including a number of nationally recognized programs. In 2004, however, the county decided it was time to take a different approach. New cases of homelessness, chronically homeless people cycling through the system without attaining the help they need, and increasing amounts of people turned away from assistance because of lack of space indicated that there were flaws in the current system.

The plan to end homelessness in 10 years asserts that communities can eradicate homelessness if enough resources are invested wisely to address the problem successfully. The plan consists of five key priorities that, if implemented, would make possible the goal of ending homelessness in 10 years. First, adopting the Housing First approach will allow the county to help homeless persons access stable housing as quickly as possible, and then link them with the appropriate services and supports. The second priority is to provide wraparound services by integrating homeless and mainstream services at both the system and client level. This strategy also includes the system-wide data collection to better understand the needs of the homeless population.

Essential to housing stability is employment that provides a "housing wage," the wage level that allows people to pay no more than 30 percent of their income to rent. Enhancing the ability of homeless people to access and maintain housing wage employment in order to increase their level of self-sufficiency is the third priority. Enacting a "Hire Homeless First" policy for all local government, entry-level employment opportunities and a housing wage ordinance that links minimum wage to housing costs are two of the action steps Contra Costa County has included in their strategy. Contra Costa's plan includes an aggressive approach to incorporating the often mistrustful chronically homeless population. Developing teams comprised of specialists from a number of pertinent disciplines, outreach to the chronically homeless will be expanded and intensified. Low case loads will allow the outreach team to build trust and successfully link services with needs in this often difficult-to-serve homeless population. The final priority is the implementation of homeless prevention. The expansion of existing emergency prevention services, case management, and legal assistance, as well as the creation of housing support centres, will aid in the elimination of new cases of homelessness.

The plan also calls for a new "bridge subsidy" program dedicated to those at risk of homelessness. Contra Costa recognizes prevention as the most humane and cost-effective way to end homelessness, and thus all mainstream health and social service programs are being urged to join the effort to prevent homelessness in the county.

Source: Ending Homelessness in Ten Years: A County-Wide Plan for the Communities of Contra Costa County, 2004

Chattanooga, Tennessee

The Blueprint to End Chronic Homelessness in the Chattanooga Region in Ten Years, relies on four primary "spheres of activity." Each sphere includes realistic strategies to address and end homelessness in the region in 10 years.

Expand permanent housing opportunities: Chattanooga's plan calls for creating 1,400 new affordable housing units over the next 10 years through the provision of rent subsidies, new housing development, and the preservation of the current affordable housing stock. Also, it will streamline housing placement services through a centralized housing assistance office that will locate units and identify prospective clients. In

addition, the plan calls for the exploration of ways to prioritize homeless people for placement into subsidized housing.

Increase access to services and supports: The plan reconfigures the current case management system to be more assertive, coordinated, and focussed on placing homeless people in permanent supportive housing and keeping them there. Integral to increasing services and supports available is the prioritization of funding for supportive services to both homeless and formerly homeless people in permanent supportive housing. Linking homeless and formerly homeless individuals to mainstream services as well as improving the effectiveness of outreach and engagement of unsheltered homeless persons are necessary ingredients in the plan.

Prevent homelessness: The plan calls for establishing a system that identifies people at risk of homelessness and aids them in stabilizing their housing by providing emergency assistance, improving access to supportive services, and maximizing their income. It also calls for developing permanent housing plans prior to the release of individuals from prison, hospitals, shelter, treatment, and foster care, and establishing clear responsibilities for their implementation in each community.

Develop a mechanism for planning and coordination: A newly formed Chattanooga Regional Interagency Council on Homelessness will be responsible for enhancing the government's and non-profit's capacity to raise funds directed at ending homelessness, expanding the capacity for data collection and analysis, and determining funding priorities for homelessness reduction efforts. Establishing and maintaining standards of service delivery and case management and increasing and improving the collaboration efforts between for profit, government, non-profit, and faith-based initiatives will also be within the jurisdiction of the Council.

Source: The Blueprint to End Chronic Homelessness in the Chattanooga Region in Ten Years

Broward County, Florida

The 10-year plan shifts the focus from emergency housing to permanent housing through the creation of more units for a stable and permanent living situation.

The most recent point-in-time count of homeless people in the county numbered 3,100 men, women, and children. Broward County is focussing on the rapid creation of at least 1,200 permanent housing units for homeless and at-risk individuals, mandatory inclusionary zoning in the county, and the use of public land for development by non-profits. Broward County's plan also calls for systems prevention through expanded discharge protocol and the removal of the barriers to obtaining mainstream resources faced by homeless people. A housing specialist position will be created to address the barriers to housing and aid in the rapid rehousing of homeless individuals. Full implementation of the HMIS as well as the ability to interface with other service delivery databases will improve the quality of data and ability to identify trends for preventive intervention.

Finally, the plan calls for the expansion of the Living Wage Ordinance passed in 2002 to address the gap between income and affordable housing. Further, improving education and equipping homeless and at-risk populations with job readiness and training is imperative to the maintenance of long-term housing. Included in their strategy, Broward County encourages improved communications between Homeless Service Providers and Employment Services to offset the increasingly difficult task of finding and keeping housing because of the rising costs in the county. Leveraging the \$9 million they received from federal contributions, Broward County government invested \$12 million in 2005 for homeless services, and raised \$8 million from

private donors for homeless services. Currently, the steering committee is soliciting increased support, and working on expanding its membership to include members of the local business community, corrections, and hospital districts as well as homeless and formerly homeless individuals. This expanded group will formulate the "Implementation Committee," which will be used to identify new resources, assess existing resources, and establish annual targets for success.

Portland and Multnomah County, Oregon

Three simple principles guide their strategy: focus on the most chronically homeless populations first, prevent new homelessness by streamlining access to existing services, and concentrate resources on programs that have been effective. The plan recognizes that eliminating homelessness in 10 years will require the participation of all homeless service providers. The Ten Year Plan offers steps by which to accomplish this goal:

1. Move people into Housing First.
2. Stop discharging people into homelessness.
3. Improve outreach to homeless people.
4. Emphasize permanent solutions.
5. Increase supply of permanent supportive housing.
6. Create innovative partnerships to end homelessness.
7. Make the rent assistance system more effective.
8. Increase economic opportunity for homeless people.
9. Implement new data collection technology throughout the homeless system.

These nine steps have contributed to significant progress in the mission to end homelessness in 10 years. In the last year, new resources have been secured through two large federal grants and a foundation grant to implement systems change to help end chronic homelessness through permanent supportive housing. The Housing First approach has helped move 436 homeless into permanent housing, and 64 chronically homeless into permanent supportive housing in the last year. As of September 2004, there were 350 new units of permanent supportive housing with a goal of 400 by 2007 and 1,600 by 2015. The Transitions to Housing program has provided over 1,300 households with short term rental subsidies. Twelve-month estimates show that 71 percent of households retained permanent housing free of rent assistance, and the latest figures show that households, on average, have increased their monthly income by almost 35 percent. Finally, Portland has implemented a management information system through successfully securing a HUD grant. This system will serve more than 20 non-profit agencies with a better tool for the data collection and analysis of Portland's homeless population, and better data create better solutions.

Source: Home Again: A 10Year Plan to End Homelessness in Portland and Multnomah County.

Appendix G: Sensitivity Analysis

Sensitivity analysis explores the role of uncertainties in the data and the assumptions used to replace missing information in the overall results of the model. The following table summarizes the results of the sensitivity analysis for each model.

Table 32: Summary Table of Sensitivity Analysis

Model	Population	Capital Costs	Discount	Expected Changes in Other Service Usage
	Estimates		Rate	
'At Imminent Risk' and Homeless	Sensitive	Not Sensitive	Sensitive	Sensitive
Absolutely Homeless	Not Sensitive	Not Sensitive	Sensitive	Sensitive
'At Imminent Risk'	Not Sensitive	Not Sensitive	Not Sensitive	Sensitive

(1) Combined At Imminent Risk and Absolutely Homeless Population

Given the uncertainty surrounding the numbers of people likely to be in need of housing, a sensitivity analysis was conducted for high and low estimates of the population deemed to be at imminent risk or absolutely homeless. For the **high end of the population estimate (27,759), a capital investment of \$1.3 billion produced a lower recurrent cost avoidance of \$380 per person per year. For the low end of the population estimate (9,759), a capital investment of \$241 million produced recurrent cost avoidance of \$2,400 per person per year.** We can conclude that the model is sensitive to changes in the population estimates. The intervention becomes cost neutral at approximately 32,000 people, which is larger than the high-end population estimate.

We also conducted a sensitivity analysis on the capital costs, investigating the effects of increasing the expected capital cost per unit by 20%. Results are not very sensitive to an increase in capital costs. It takes an increase of 45% in the estimated capital costs before the outcome of the intervention is cost neutral (cost avoidance equals the additional costs of the intervention).

In economic evaluations, the discount rate used to annualize costs can greatly effect the outcome of the model. In our base-model, we followed recommended practice and annualized the capital costs at a discount rate of 3%. We conducted a sensitivity analysis on the discount rate. When using a discount rate of 1%, the outcome remains cost avoidant, with an annualized capital cost of \$1,701 per person. At a discount rate of 5%, the outcome of the model remains cost avoidant, with an annualized capital cost \$3,653 per person. The results are cost neutral at a discount rate of approximately 5.2%. This is a relatively narrow band within which our model remains cost offsetting and suggests caution be taken when considering our results.

Our results are very sensitive to the expected changes in other service usage consequent to an improvement in housing tenure. The intervention only has to be 6.5% less effective in terms of its impact on other service use before it switches from being cost-offsetting to being cost-neutral. We must conclude that caution be taken when interpreting our results within the Canadian context.

(2) Absolutely Homeless

Given the uncertainty surrounding the numbers of people likely to be in need of housing, a sensitivity analysis was conducted for high and low estimates of the population deemed to be absolutely homeless. The result in both scenarios remains cost offsetting. For the **high-end population estimate (15,500), a capital investment of \$1.0 billion produced recurrent operational costs avoidance of \$2,792 per person per year. For the low-end population estimate (8,000), a capital investment of \$533.5 million produced recurrent operational cost avoidance of \$2,792 per person per year.** Overall, per capita cost avoidance including capital costs is higher when the intervention covers a smaller population. All else equal, the intervention remains cost-avoidant no matter what the size of population covered.

We also conducted a sensitivity analysis on the capital costs, investigating the effects of increasing the capital cost per unit by 20%. Again, our results are stable. At the higher level, the annual equivalent capital costs is \$3,110 per person, which is still less than the 'cost avoidance' in recurrent operating costs. It takes an increase of 2.1 times the estimated capital costs, before the outcome of the intervention is cost neutral.

In economic evaluations, the discount rate used to annualize costs can greatly effect the outcome of the model. In our base-model, we followed recommended practice and annualized the capital costs at a discount rate of 3%. We conducted a sensitivity analysis on the discount rate. When using a discount rate of 1%, the outcome remains cost avoidant, with an annualized capital cost of \$3,371 per person. At a discount rate of 5%, the outcome of the model is a net *cost* with an annualized capital cost \$1,377 per person. The results are cost neutral at a discount rate of approximately 7.25%. This is also a relatively narrow band within which our model remains cost avoidant and suggests the need for reflection on the discount rate.

Our results are very sensitive to the expected changes in other service usage consequent to an improvement in housing tenure. The intervention only has to be 13.75% less effective in terms of its impact on other service use before it switches from being cost-offsetting to being cost-neutral. We must conclude that caution be taken when interpreting our results within the Canadian context.

(3) At Imminent Risk Population

Given the uncertainty surrounding the numbers of people likely to be in need of housing, a sensitivity analysis was conducted for high and low estimates of the population deemed to be 'at imminent risk' of homelessness. The result in both scenarios remains cost avoidant. For the **high-end population estimate (12,259), a capital investment of \$817.5 million produced a recurrent *cost* of \$1,515 per person per year. For the low-end population estimate (1,759), a capital investment of \$650.8 million produced a recurrent *cost* of \$9,166 per person per year.** Overall, per capita cost including capital costs are higher when the intervention covers a smaller population. All else equal when the intervention is aimed at only the 'at imminent risk' population, the intervention is not cost-avoidant at any size population.

Given that this intervention aimed at only the 'at imminent risk' population is not cost avoidant, we also conducted sensitivity analysis on the capital costs, investigating the effects of decreasing the capital cost per unit by 20%. At 20% lower capital costs, the annual equivalent capital cost is \$2,073 per person, which is still more than the 'cost avoidance' in recurrent operating costs. It takes an decrease of 60% in the estimated capital costs, before the outcome of the intervention is cost neutral.

In economic evaluations, the discount rate used to annualize costs can greatly effect the outcome of the model. In our base-model, we followed recommended practice and annualized the capital costs at a

discount rate of 3%. We conducted a sensitivity analysis on the discount rate. At a discount rate of 5%, the outcome of the model remains a net *cost* with an annualized capital cost \$2,576 per person. When using a discount rate of 1%, the outcome of the model again remains a net *cost*, with an annualized capital cost of \$624 per person. Without discounting, the outcome of the model remains a net cost.

Our results are very sensitive to the expected changes in other service usage consequent to an improvement in housing tenure. The intervention only has to be 8.5% more effective in terms of its impact on other service use before it switches from being cost-saving to being cost-neutral. We must conclude that caution be taken when interpreting our results within the Canadian context.