A Literature review on housing persons with a severe mental illness, with and without co-occurring substance abuse.

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Executive Summary

The importance of stable, affordable, and adequate housing to meet the needs of individuals with severe and persistent mental illness (SPMI) has grown alongside the near-total transformation of long-term psychiatric care from institutional settings to the community. Along with this has emerged research which documents that individuals with SPMI most often identify income and housing as the most important factors in achieving and maintaining their health. The research on housing for persons with mental illness supports a housing first model for most persons disabled by mental illness to meet the needs of a majority of this group, while recognizing that an important sub-group of high needs individuals will require supervised, sheltered accommodation which may include, in some instances, continued treatment approaches that supplement those initiated in inpatient units.

Recent research reports have highlighted the growing demand of consumers to have choice and control over their housing. This demand has been underscored by the growing acceptance of recovery principles as foundational to treatment and housing programs. Increasingly, persons with SMPI are demanding greater housing options and housing independence.

Traditionally, the institution–community interface has been conceptualized using a "Continuum of Care" (COC) ideal type model, whereby people with SPMI are expected to pass through successive stages and types of accommodation (from the street or institutional living to permanent supportive housing). The COC continuum includes group homes, boarding homes, community residences, dedicated apartment buildings and scatter-site supervised apartments. At each stage, clients must demonstrate 'housing readiness', which generally includes a demonstration of ADL skills, being sober and complying with psychiatric treatment. Evaluations of a different, innovative model exemplified by "Housing First" initiatives, however, are now appearing in the literature. The Housing First model rejects the logic of

housing readiness in the COC model, instead promoting the position that stable housing is, for many people with SPMI, a precondition to participating successfully in psychiatric treatment and dealing with addictions.

Research on housing programs for the mentally ill has reflected the historical trends in the types of housing provided. Early studies compared institutional and inpatient treatment with community housing, but often presented the housing as a component of community care. That is, treatment and housing continued to be combined. Implicit in these early studies was the linkage of housing and treatment, usually in some form of congregate care.

The end of the 1980's and early 1990's saw an explosion of literature that focussed on the homeless mentally ill. As many housing programs failed to accommodate this population, made restrictive demands on their housing tenure, and as governments failed to replace institutional beds with adequate, affordable and appropriate accommodations in the community, the ranks of the homeless were swelled with those having a mental illness or co-occurring mental illness and substance abuse disorders.

In the 1990's the research on housing for the mentally ill began to focus on various housing models, with some considerable attention to housing plus supports. Many focussed on psychiatric outcomes and some on the consumer's quality of life. At the same time a body of literature emerged that spoke of consumer preferences.

The term "best practices" has become synonymous with "evidence based practices", especially in research and reports arising from the U.S. This concept refers to conclusions drawn from rigorous scientific evaluation of mental health (also now known as behavioural health in the U.S.) interventions that have been demonstrated to be:

- Effective
- Safe

- Cost-effective

However, the gold standard of rigorous scientific evidence is usually drawn from randomized clinical trials, and this methodology is unfeasible, often for ethical reasons, for many mental health services, including housing. Research that uses other methodologies such as quasi-randomization and cross-over designs are more prevalent but not as rigorous. The result is an ongoing debate about which interventions are really "best". We have attempted to identify studies that were at a minimal quasi-randomized or cross-over designs and which have supported or been supported by similar studies.

This review of the literature included an examination of peer-reviewed journals as well as the "grey" literature (consisting of government documents, commissioned reports and salient information posted on web sites). We used the search engine Google Scholar to find major contributions and then followed bibliographic references, both on-site and in the literature to expand the search. We also conducted a systematic search of several electronic academic databases.

Of the literature included in this review, a significant number of studies have been identified which focus on evaluating outcomes of housing and housing services programs for persons with SPMI. The majority of literature evaluated programs in terms of one or a combination of several different outcomes: retention (housing tenure); psychiatric (changes in mental health status and symptoms); cost/benefit analysis; consumer experiences and preferences. There are two primary focuses to these studies. A significant number focus on evaluating outcomes of housing programs in relation to housing type (e.g. supported independent apartment; group home; community integrated living) and pay little and sporadic attention to describing and/or evaluating in terms of program philosophy, service delivery methods, and housing environment (e.g. location, quality, living arrangements). The second focus involves an investigation of outcomes in one or several of the four outcome domains when consumers are housed according to their preferences

(e.g. preferred housing type; treatment requirements; program compliance requirements). There is a smaller set of studies that evaluate outcomes as associated with housing-related service delivery methods such as ACT (Assertive Community Treatment), ACCESS (Access to Community Care and Effective Services and Supports) and Critical Time Intervention (CTI).

This review of the literature sought out examples of "best practices" in housing persons with a persistent mental illness. The term 'best practices' is synonymous with 'evidence based practices' and refers to evidence-based practices, that is, those that have been proven to be effective. While there is still discussion and some debate about different housing models, the best practice consensus is for a supported housing approach. Best practices also lead to community integration.

The set of references for this review reveal some strong and consistent patterns in 'best practices' for housing for persons with persistent mental illness. The housing needs of persons disabled by mental illness are well documented. Over 150 research studies in the last 15 years have emphasized the need to provide:

- individualized living units,
- preferably not clustered in large projects which are stigmatizing.
- these units should be of the occupant's choosing
- be readily accessible to community services and amenities.
- they should not be contingent upon meeting pre-conditions of "housing readiness", sobriety, treatment compliance or use of mandatory services.

Persons housed under this model consistently show greater housing stability, reduced use of hospitalization and ancillary services, greater community integration and significantly higher satisfaction with quality of life.

This model, commonly called 'housing first' has been successfully implemented in cities as diverse as New York, Portland and Toronto (which has a sizable number of units devoted to this model). Outcomes in terms of housing retention rates,

consumer satisfaction, psychiatric stability, quality of life, cost-effectiveness, and community integration have been found to be significantly higher for 'housing first' models than for traditional 'continuum of care'.

While the housing needs of a vast majority of those disabled by mental illness can be addressed by the 'housing first' model, there is a smaller, but distinct group of people whose mental illness is so disabling that they are not able to be self-sufficient even though they may not require the intensive treatment of an inpatient psychiatric unit. The literature makes scant mention of this sub-group, despite the fact that they require large resources, both physical and financial [1]. The literature suggests that these "hard to house" individuals can be successfully accommodated in a variety of alternative settings: specialized boarding homes and hostels where there are varying degrees of support services and personnel available to meet basic daily needs and – for some – to provide supervision.

Thus the research on housing for persons with mental illness in many disparate locations (Australia, Canada, the Netherlands, New Zealand, Norway, Sweden, the UK, the U.S.) all supports a housing first model for most persons disabled by mental illness to meet the needs of a majority of this group, while recognizing that an important sub-group of high needs individuals will require supervised, sheltered accommodation which may include, in some instances, continued treatment approaches that supplement those initiated in inpatient units. These highly specialized units for the most severely disabled should parallel programs for the physically disabled.

Research on housing the mentally ill is now abundant and while efforts to refine some of the approaches for specific subgroups, and to recognize elements of cultural and ethnic diversity that may influence housing preferences, it is clear that we have sufficient understanding of the scope of the problems, the housing issues and needs that future efforts be placed on:

- refinements of the housing first model and its adaptation for special populations
- housing ethnically diverse people
- the housing needs of the ageing mentally ill
- housing the hardest to place
- housing needs of couples
- housing adults with dependent children (families).

A Literature review on housing persons with a severe and persistent mental illness, with and without co-occurring substance abuse

Background: The Need To Explore Housing Options And Opportunities For Persons With Severe And Persistent Mental Illness

The importance of stable, affordable, and adequate housing to meet the needs of individuals with severe mental illness (SMI) has grown alongside the near-total transformation of long-term psychiatric care from institutional settings to the community. Along with this has emerged research which documents that individuals with SMI most often identify income and housing as the most important factors in achieving and maintaining their health. Housing is a stabilizing force in everyday life, which forms the foundation on which a person can establish a daily routine and begin to address other life issues. However, due to low incomes, stigma, fluctuations in symptoms, and difficulties in daily functioning inherent to SMI, persons with SMI cannot compete for market rental housing or gain entry to scarce supportive housing units. Consequently, many live in substandard accommodations that are physically inadequate, crowded, noisy, and located in undesirable neighbourhoods. The challenge of providing stable housing options for persons with SMI is reflected in the estimated 67% of homeless persons that are believed to have a history of mental illness in their lifetime. This estimate is supported by the last available data from the Calgary Homeless count of 2002 that found at a minimum 26% of the homeless had an identifiable mental disorder and 67% a substance abuse disorder.

Recent research reports have highlighted the growing demand of consumers to have choice and control over their housing. This demand has been underscored by the growing acceptance of recovery principles as foundational to treatment and housing programs. Increasingly, persons with SMPI are demanding greater housing options and housing independence.

Traditionally, the institution–community interface has been conceptualized using a "Continuum of Care" (COC) model, whereby people with SMI are expected to pass through successive stages and types of accommodation (from the street or institutional living to permanent supportive housing). The COC continuum includes group homes, boarding homes, community residences, dedicated apartment buildings and scatter-site supervised apartments. At each stage, clients must demonstrate 'housing readiness', which generally includes a demonstration of ADL

skills, being sober and complying with psychiatric treatment. Evaluations of a different, innovative model exemplified by "Housing First" initiatives, however, are now appearing in the literature. The Housing First model rejects the logic of housing readiness in the COC model, instead promoting the position that stable housing is, for many people with SMI, a precondition to participating successfully in psychiatric treatment and dealing with addictions.

In Canada, a large proportion of housing spaces available for people with SMI continue to be within the custodial model, even though homes of this type do not provide care in line with current best practices and the needs of consumers. While these types of homes do make sense from a custodial perspective (i.e. for those who require support for every day basic care), they make little sense from a rehabilitation or long-term stability perspective. Alternative housing models, emphasizing the rehabilitation model, skills training, and community integration are graining prominence in Canada, although the actual housing spaces do not always reflect this orientation. People with SMI need safe and affordable places to live and the right level of support to make tenure a success. This is increasingly difficult to accomplish given the shortage of affordable units and a lack of flexible models that best address the changing and diverse needs of people with SMI. One model that addresses the multiple needs of those with SMI is described as the Housing Stability Model.

The housing literature suggests that there are multiple domains that need to be addressed in the quest for housing stability for those with SMI. This is being conceptualized by current researchers as the Housing Stability model. This model encompasses four pillars of housing for SMI persons: housing, person, support and agency/system.

- **Housing** is understandably the first and foremost component. Within this domain fall the following factors: physical, social, and legal aspects which include areas such as: safety/security (in actual unit and in the neighbourhood), cleanliness, air and water quality, atmosphere, privacy, tenure (tenant vs. patient designation, accountability, and control by the tenant), community integration, access to community resources and activities, provider's capacity for flexibility, accountability of management (housing providers) to tenants/residents, and housing that is not stigmatized by location, identification or reputation.
- The **person** is the second focus in that there is appropriate attention to the multiple aspects of the individual: individualized needs, abilities, and contributions of the individual in accessing housing, including preference, diversity, choice, and income of the resident, screening and assessment, and optimal fit.
- **Support system**: The third component of housing stability is the provision of a support system. Housing stability requires a team of support providers—including case managers, housing support workers, and peer/family support—working with tenant, attending to psychological and

social aspects (attachment and feeling "at home"), providing information, and monitoring.

- **Agency/system** Finally, housing stability must take into account *agency/systemic* factors which directly impact the ability of providers to organize, finance, manage and sustain the housing. The components include system structuring, provision of information and accountability to stakeholders at all levels.

I. The context for social housing and housing for the mentally ill in Canada and in Alberta.

I.1. Background

For the last 20 years social housing in Canada has been a neglected step-child of federal initiatives and many provincial in efforts. In the mid 1980's the federal government cut back on social housing programs. By 1993 the annual growth of federal sponsorship had been reduced to zero [2] . Provincial responses to this have been uneven, with some provinces such as Ontario developing a Ministry of Housing and making a commitment to gradually include all low income persons, regardless of disability, as eligible for social housing. Others, such as Alberta, have no designated funds for capital development or ongoing housing support, and only minimal funds for rental supplements [3]. Local responsibility for housing has also been influenced by provincial supports, or lack thereof, with most cities reluctant to supply anything other than acutely needed emergency shelters, primarily for homeless individuals. The net result is an uneven distribution of housing programs and resources, especially for the mentally ill, across the country [4]. While recent funding from the National Homelessness Initiative has made some development funds available from federal sources through its *Supporting Community Partnerships Initiative* (SCPI), the amounts allocated are minimal compared to the needs [5]. Furthermore, these funds are subject to the political will of the party in power and may not necessarily survive with a change in leadership.

Unlike some provinces, Alberta does not have a separate housing portfolio. Until early 2007 responsibility for social housing in Alberta resided with the Ministry for Seniors, although this appears to be in transition. This lack of political presence has complicated efforts to determine leadership and responsibility for housing programs for the mentally ill in the province. In this vacuum, SCPI funding has provided for some housing initiatives, but the effort is minimal compared to the perceived need. At the same time, there is lack of clarity about recommended and preferred housing programs for mentally ill persons.

Community housing for the mentally ill was brought to national and international attention when the deinstitutionalization movement sent large numbers of people into the community without adequate provision for housing and supports. Large-

scale boarding homes and single room occupancy hotels (SRO's) were generally the only accommodation available for those who had no family supports or income sufficient for market-rate housing. The result, in many large cities, was mini-institutions that provided marginal housing and major controls on the activities of persons housed [6]. As a new cohort of psychiatric patients, with no institutional experience, emerged, efforts to house them in a more "natural" community setting resulted in the creation of group homes by local mental health agencies. These programs generally combined housing and supports in a quasi-institutional setting. Program rules and expectations were clearly laid out and residents were expected to follow a treatment plan. By the 1980's some of this cohort had "graduated" to independent living in apartments, funded with rental supplements and usually with a case plan developed by the local organization supplying community supports. In all cases residents were expected to be treatment compliant and to abstain from the use of alcohol and illicit drugs. Substance use was generally not tolerated and frequently resulted in eviction. Apartment residents were rarely afforded the same landlord-tenant rights as the general population [7, 8].

This transitioning from highly supervised living arrangements to semi-independent ones It retained many of the coercive features of institutional treatment and was geared towards meeting the needs of providers for custody and control rather than that of those with SMI for independence and freedom of choice. It has been suggested that the COC model may violate human rights [7].

The Province of Ontario was a notable exception to the prevailing trends to demand treatment compliance, a case plan and alcohol abstinence. It determined, in the late 1980's, that persons with a mental illness should be afforded social housing without treatment or behavioural demands [9]. This has led to a fairly extensive housing program in Ontario that places individuals directly into apartments of their choosing, with support services provided by a local non-governmental organisation (NGO). Similarly, a housing program in New York City has provided housing directly from streets and shelters for homeless, dually diagnosed individuals without requirements of abstinence or treatment compliance.

I.2. Research on housing for the mentally ill

Research on housing programs for the mentally ill has reflected the historical trends in the types of housing provided. Early studies compared institutional and inpatient treatment with community housing, but often presented the housing as a component of community care [10, 11] [12] [13]. That is, treatment and housing continued to be combined [14], [15]. Implicit in these early studies was the linkage of housing and treatment, usually in some form of congregate care [16]. However, most often no program descriptions were provided so that much of what is known about these housing efforts is presumptive.

The end of the 1980's and early 1990's saw an explosion of literature that focussed on the homeless mentally ill [17]. As many housing programs failed to accommodate this population, made restrictive demands on their housing tenure, and as governments failed to replace institutional beds with adequate, affordable and appropriate accommodations in the community, the ranks of the homeless were swelled with those having a mental illness or co-occurring mental illness and substance abuse disorders [18], [19], [17], [20].

In the 1990's the research on housing for the mentally ill began to focus on various housing models, with some considerable attention to housing plus supports [21, 22], [23], [24]. Many focussed on psychiatric outcomes [25], [26], [27], [28] and some on the consumer's quality of life [29], [30]. At the same time a body of literature emerged that spoke of consumer preferences [31], [32], [33], [34], [30]. The details of these studies are discussed below.

These studies also often attempted to distinguish between ***supportive*** and ***supported*** housing. Supportive housing referred to programs that provided a combination of housing and support services. Most often these support services were mandatory and housing rules dictated behavioural expectations about curfews, absences, room-mates, visitors. Pets were rarely allowed. Supported housing generally implies independent housing in the community, with supports available on an as needed or as requested basis. Experience has shown that few housing programs studies have provided sufficient detail about the nature and extent of supports to clearly identify whether a program was supportive or supported. This lack of clarity and considerable blurring of boundaries between the two concepts have led researchers to abandon this distinction [35] and instead concentrate on identifying the nature and extent of supports offered.

Recently a number of publications have focussed on a review of the literature on housing the mentally ill. Dickey [36] examines the work on outcomes of specialized outreach, treatment and housing programs and notes that it is difficult to determine outcomes of these programs or their cost-effectiveness. Another review from the UK notes that the needs of high needs, hard to place individuals have been largely overlooked [1]. A Cochrane review that searched for randomized and quasi-randomized trials reports that it did not find any studies that met the search criteria [37]. However, this work appears to have misclassified the work by Tsemberis and colleagues on Housing First. Other reviews have looked at characteristics of the housing [38], research on supported housing [39], and the evidence for supported housing [40]. These are discussed further in the following section.

I.3. Best Practices

The term 'best practices' is synonymous with 'evidence based practices' [41-43] and refers to evidence-based practices, that is, **those that have been proven to be effective and efficacious.** This concept refers to conclusions drawn from rigorous

scientific evaluation of mental health (also now known as behavioural health in the U.S.) interventions that have been demonstrated to be:

- Effective
- Safe
- Cost-effective

While there is still discussion and some debate about different housing models, the best practice consensus is for a supported housing approach [44]. Best practices also lead to community integration [45].

However, the gold standard of rigorous scientific evidence is usually drawn from randomized clinical trials, and this methodology is unfeasible, often for ethical reasons, for many mental health services, including housing. Research that uses other methodologies such as quasi-randomization and cross-over designs are more prevalent but not as rigorous. The result is an ongoing debate about which interventions are really "best". We have attempted to identify studies that were at a minimal quasi-randomized or cross-over designs and which have supported or been supported by similar studies.

I.4. Methodology

This review of the literature included an examination of peer-reviewed journals as well as the "grey" literature (consisting of government documents, commissioned reports and salient information posted on web sites). We used the search engine Google Scholar to find major contributions and then followed bibliographic references, both on-site and in the literature to expand the search. We also conducted a systematic search of the following electronic databases:
Academic Search Premier,
Canadian Reference Centre,
CINAHL Plus with Full Text,
Family & Society Studies Worldwide,
Humanities International Complete,
MEDLINE,
Psychology and Behavioral Sciences Collection,
PsychInfo, and
SocINDEX with Full Text
Journals@Ovid (ovft),
CDSR (coch),
HealthSTAR (hstr),
Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations (prem),
Ovid MEDLINE(R)

The literature search used the following key words, either alone or in combination: Housing, mentally ill, psychiatric patients, supportive housing, supported housing, program evaluation, continuum of care, homeless mentally ill, community supports,

housing outcomes, alternative care, community tenure, housing policy, independent living, foster homes, and housing supports.

We assembled 277 relevant references, of which 265 were published since 1990. After removing highly similar items and extraneous references 246 remained. Some pertained to housing policy for the mentally ill in Canada since this is relevant to the housing models proposed in the various regions of the country. A few studies looked at homeless people living in shelters and, while informative, are not central to the present review. These studies, along with some that are marginally relevant, are listed in the bibliography, but have not been further cited in the text.

II. Housing Policies and Reports

Focussed studies, evaluations and reports on housing the mentally ill, and the homeless mentally ill have been commissioned by many provinces and U.S. states as well as municipal and regional authorities in the UK and Australia. We have included a survey of some of the most comprehensive work in this review of the literature. Housing studies in Canada have emerged from Canada Housing and Mortgage Corporation, research centres at Canadian universities, provincial mental health organizations, regional and municipal mental health and housing organizations and governmental bodies.

This grey literature on housing the mentally ill has grown exponentially, with 22 reports captured from before 1999 and over 35 in the last 7 years. It reflects a growing concern with the overall problem of homelessness, which recently has subsumed issues of housing the mentally ill. The tendency to place the mentally ill as a special population of the overall homeless group has at times obscured the unique needs of this diverse group of people.

Early housing policy regarding the mentally ill, in response to the deinstitutionalization movement, was concerned with provision of community care and treatment [22] [6, 13, 46, 47] and the rights of the mentally ill to be housed in the least restrictive settings. By 1993 the focus had begun to shift to the type of housing that should be provided [21, 48] indicating that this housing should be coupled with appropriate supports [48]. Recommendations for housing with supports came from diverse and widespread directions:

- U.S. Dept. of Housing and Urban Development, Office of Policy Development and Research [49]
- U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration [49]
- Center for Mental Health Services [49]
- National Resource Center on Homelessness and Mental Illness Policy (U.S.) [49]
- Alberta Provincial Mental Health Board [48]
- National Association of State Mental Health Program Directors [50]

- Australian Commonwealth Government (National Mental Health Policy and Plan) [51]

Since 1999 the policy debate has shifted to an emphasis on the types of supportive housing most appropriate for this population and whether the housing should be contingent on, or in addition to various forms of treatment or case plan compliance.

Most of the housing policy debate has centred on various forms of custodial or rehabilitative care in the community versus providing housing first and adding support services on an as needed and as requested basis. Some advocates have suggested that community care and rehabilitation models are, for the most part, coercive and compromise the freedoms and rights of individuals [52]. While a strong case for this has been put forward by Allen [7] and Weisberg [9] it has not yet been subject to court challenge or legislative change in either Canada or the U.S. Reports indicate that the province of Ontario has come closest to ensuring a housing first policy for those with SMI [9].

While the policy focus has moved towards greater community integration and less coercive housing options, a small but important cohort of the mentally ill has been neglected in discussion of housing options. Those whose symptoms are severe and not responsive to psychopharmacological treatments are left with major functional deficits that preclude independent living. The needs for this group of people are rarely acknowledged in the policy debate. At the present time they appear to occupy long-term beds in some of the remaining psychiatric facilities or in nursing homes that are not necessarily structured to meet the needs of a psychiatric population.

III. Housing Programs and Services Evaluations

Of the literature included in this review, a significant number of studies have been identified which focus on evaluating outcomes of housing and housing services programs for persons with SMI. The majority of literature evaluated programs in terms of one or a combination of four different outcomes: retention (housing tenure); psychiatric (changes in mental health status and symptoms); cost/benefit analysis; consumer experiences and preferences. There are two primary focuses to these studies. A significant number focus on evaluating outcomes of housing programs in relation to housing type (e.g. supported independent apartment; group home; community integrated living) and pay little and sporadic attention to describing and/or evaluating in terms of program philosophy, service delivery methods, and housing environment (e.g. location, quality, living arrangements). The second focus involves an investigation of outcomes in one or several of the four outcome domains when consumers are housed according to their preferences (e.g. preferred housing type; treatment requirements; program compliance requirements). There is a smaller set of studies that evaluate outcomes as associated with housing-related service delivery methods such as ACT (Assertive Community Treatment), ACCESS (Access to Community Care and Effective

Services and Supports) and Critical Time Intervention (CTI). The four outcome domains (retention, psychiatric, cost and consumer experiences) form the outline for the first section examining housing program evaluations while the second section discusses the studies that focus on service delivery outcomes.

III.1. Housing Retention Outcomes Evaluations

There are four different factors found in the literature against which tenure outcomes have been measured. These factors are:

- Housing program/setting (i.e. residential treatment compared to supportive independent apartments);
- Consumer preferences;
- Demographic factors;
- Effects of policy choices on tenure outcomes, such as special category housing and government rental support assistance programs (e.g. Section 8 certificates in the U.S.).

III.1.a. Retention and Housing Type

The majority of studies on retention as associated with housing setting or housing type focus on one of three main variables. An initial set of three studies focus on *the levels of housing stability achieved when consumers were discharged from institutional settings to residential programs*. Lipton et al [15] found that those discharged to residential treatment programs, as opposed to standard post-discharge care spent significantly more nights in adequate shelter, fewer nights homeless or in hospital, and were more satisfied with their living arrangements. Leff [53] also examined the housing stability of patients discharged to residential programs (staffed group homes) at a one-year follow-up, finding that a significant percentage stayed in the same place of residence. They concluded that staffed group homes help to avoid homelessness and crime after discharge. In 2004, Hanrahan et al [54] examined the effects of discharging patients from institutional settings to community integrated living (CIL) arrangements. Similar to the earlier studies, their findings indicate that, of the patients discharged to CIL, there were significantly lower hospitalization rates and crisis center admissions per patient at the one-year follow-up. Rowlands et al [55] examined the movement to independent living of patients in an acute psychiatric ward. Their findings show that while the majority of clients moved to independent living arrangements, half of the subjects were in highly supported settings and 90% remained involved with psychiatric services.

The second focus of housing type-retention studies is *on tenure outcomes associated with placing homeless persons with SMI directly into group homes or CIL arrangements*. These studies indicate that intermediary steps (e.g.

hospitalization; shelter care; residential care; transitional housing) may not be necessary prior to placing consumers into supportive housing; that consumers can maintain housing stability when placed directly from the street into more permanent housing environments. One of these studies, focusing on persons with SMI in Copenhagen, Denmark found that, one year after placement, a significant percentage of consumers stayed in their group homes. Conclusions from this study suggested that small group homes, as opposed to standard psychiatric treatment, can increase the community tenure of persons with severe mental illness [56]. Several further studies, in a North American context focused on persons with SMI who had experienced tenure difficulties and/or homelessness. When placed in community residential treatment programs, the sample populations experienced significantly more days in stable housing [57, 58], lower hospital and crisis center admission rates [27], and a significantly greater proportion of the population were employed and had transitioned to independent living at the one-year follow-up [27].

A recent study of housing retention in the U.S [59] found that there were few differences between the mentally and those with no mental illness in reasons for the loss of housing, and that wide scale availability of low-cost housing and income support for the mentally ill would reduce their risk of homelessness.

A final set of studies focuses on the *programs providing housing with services (compared to housing alone) to improve housing stability*. Fichter and Quadflieg [60] and Bond et al [61] suggest, respectively, that housing with services or housing programs with case management are more effective and successful in maintaining tenure and stabilizing housing and financial situations than those without services or case management. McHugo et al [62] also found that providing housing that was integrated with psychiatric services led to more days in stable housing and greater satisfaction with quality of life than arrangements where housing was provided independently of services. Metraux et al [63] and Culhane et al [64, 65] examine the effects of the New York/New York housing initiative on housing stability. Results of these studies indicated that in comparison to standard care, placement through the initiative, which combined housing with mental health services, caused a reduction in shelter days (and consequently reduced pressure on shelters), significantly reduced hospitalizations, length of stay per hospitalization, and time incarcerated over an 8 year period.

One article on tenure outcomes did not fall under any of the focuses discussed above (i.e. institutional discharge; direct placement; housing with services). Lipton et al [66], in a comparison of high, medium, and low intensity housing settings (intensity referring to levels of treatment and supervision, found that consumers in high intensity settings had the worst tenure outcomes. High intensity programs were large, congregate care facilities housing upwards of 100 persons at each location. The study involved a large number of consumers (2,937) placed in a continuum of care model of housing which involved little choice of housing style or location. Although they conclude that long-term (up to five years) residential stability can be achieved through access to safe and affordable supportive housing,

less that 50% of their sample was stably housed after 5 years. They also found that consumers referred from state psychiatric centers reported shorter tenure than other subjects. Importantly, they noted that the risk of losing housing was greatest in the first four months of moving in, especially in high intensity settings.

III.1.b. Retention and Consumer Preferences

While the body of research on consumer preferences has grown over the past several years, a small set of studies has emerged which investigate the ways in which housing according to consumers' preferences affect tenure outcomes. Of the articles that examine this issue, the majority conclude that housing according to consumer preferences leads to better retention outcomes (as well as psychiatric, cost, and experiential outcomes). Keck [33] reports the results of an early pilot study examining consumer preferences for housing. The study demonstrated that the majority of consumers who were housed according to their preferences had maintained tenure and housing stability after twenty-one months.

The remaining research that we identified on retention outcomes and housing according to consumer preferences focused on the levels of stability achieved by consumers involved in Housing First programs. These programs consist of a consumer-oriented set of operating principles:

- individualized living units, preferably not clustered in large projects which are stigmatizing .
- These units should be of the occupant's choosing and be readily accessible to community services and amenities [67], [68], [40] .
- They should not be contingent upon meeting pre-conditions of "housing readiness", sobriety, treatment compliance or use of mandatory services [69], [39]

Gulcur et al [70] found that for the two-year trial period, Housing First participants referred from hospital and from the street experienced less hospitalization and homelessness than the continuum of care (COC) control group. COC is described as housing based on individuals meeting a set of behavioral expectations, treatment compliance conditions and more restrictive housing arrangements, with greater opportunity for individualized, self-standing housing upon demonstrating "stability". Other research similarly offers comparisons of Housing First retention outcomes to outcomes of COC or "Treatment-First" programs. Comparisons of Housing First participants to consumers in Treatment-As-Usual programs [71], Treatment First [72], and linear (COC) programs [73] all showed significantly less homelessness and better retention outcomes for those involved in the Housing First programs. Tsemberis & Eisenberg [73] found that, after 5 years, 88% of the Housing First participants remained stably housed compared to only 47% of those in COC programs. In regards to concerns for the potential increase in substance abuse and mental illness symptoms, Padgett et al [72] and Tsemberis et al [74] also demonstrate that those in Housing First programs can remain stably housed without increasing their substance use.

III.1.c. Group demographics affect tenure

Several researchers have noted that certain demographic aspects of those with SMI, may affect tenure outcomes. Most of the research includes levels of substance use/abuse as a demographic variables, and conclude that active substance use threatens housing stability [66, 75]. Hurlburt et al [76], and Bolton [75] found that substance abuse was a significant predictor of, and was associated with, decreased housing stability. Fichter and Quadflieg [60] and Lipton et al [66] also found that substance abuse and higher levels of mental illness negatively affect retention outcomes. In addition, Lipton et al also report findings which indicate that, in supportive housing arrangements, older age may be associated with longer tenure. Comparing independent apartments to staffed group homes, Goldfinger [77] et al found that substance abuse was the most significant predictor of the number of days homeless regardless of the type of housing placement. Select studies have also suggested that the elderly, those with prior treatment, and treatment resistant, hard-to-place consumers are of a special demographic and may demonstrated unique retention outcomes.

The findings of Goldfinger [77] et al also indicate that members of "minority" groups (of non-caucasian ethnicity) experienced more homeless days when placed in independent housing as compared to placement in staffed group homes. However, this American study had a disproportionately high number of Afro-American participants (44%) which may account for this finding. Their conclusions also indicate that special attention should be paid to identifying and finding different housing solutions for individuals who may be at particular risk for housing instability (i.e. those with substance abuse problems).

Early reports tended to emphasize mentally ill persons as hard to house. With current findings that many can be readily housed, some studies have looked at those within the SMI population that are truly difficult to house outside of hospital. Piat [78] examines a housing project for "hard-to-place" individuals – consumers who had failed several times at their attempts to live in the community and returned to hospital for lengthy periods – that consists of a boarding home arrangement with trained psychiatric staff. The findings of this study "suggest that individuals suffering from severe mental illness, who previously could not function outside of an institutional setting, can settle well into a community environment. The overall time spent in hospital by the residents one year pre-and post-evaluation differed greatly (in total 650 days before versus 124 days after placement)" [78, para. 38]. Becker [79] and Hanson [80] also report positive outcomes from intensively supported hostel or boarding home style arrangements for seriously handicapped persons in Europe.

A small, but significant set of studies from the U.S. examines retention outcomes for homeless veterans in different housing and treatment programs. In the U.S.

veterans receive housing and medical entitlements and the Department of Veterans Affairs regularly conducts research on their needs. It is not clear, however, that their shelter and support needs differ substantially from the rest of the SMI population. Comparing those with/without prior psychiatric treatment in the state of Virginia's Healthcare for Homeless Veterans Supported Housing Program, Mares et al [81] found that prior treatment had little to no effect on retention. Examining a federal housing program for homeless veterans (HUD-VASH), Rosenheck et al [82] found that those in the program experienced 35% fewer homeless days and 16% more days housed than those in Case Management or Standard treatment only. Kasprow et al [83] also found that of those in the HUD-VASH program, 64% eventually moved into an independent apartment and that 84% were stably housed after one year. These results further support the evidence that housing stabilizes those with SMI.

III.1.d. Effects of policy choices on tenure outcomes

There is some evidence in the literature that certain policy options may have positive effects on housing stability. In particular, several studies have focused on the outcomes of providing persons with SMI access to Section 8 certificates (a federal initiative to subsidize housing for low-income families and individuals). Newman et al [84] and Hurlburt et al [76] found that provision of rental subsidies through Section 8 certificates to persons with chronic mental illness resulted in positive effects on independent living and housing stability. In a separate article comparing four different arrangements of housing services and support services, Hurlburt et al [85] found that those with access to Section 8 certificates demonstrated significantly better housing stability outcomes and increased use of case management services. However their results reveal subsets in all groups that did not demonstrate housing stabilization, indicate the existence of a heterogeneous population with assorted housing needs. One final study in Sweden [86], with a focus on the effects of government policy options on retention outcomes, indicated that special category housing has positive direct effects on housing stability for homeless persons with substance abuse problems. The findings of this study indicate that there was no evidence of positive effects of special category housing on levels of substance misuse. In Ontario, Weisberg [9] reports on government policy that allows direct placement of persons with mental illness into rent-subsidized apartments of their choosing, without occupancy prerequisite or requirements for treatment. Although functioning successfully, this policy and it housing implications have not been subject to any systematic research.

III.2. Psychiatric Outcomes Evaluations

The following section reviews studies that examine psychiatric outcomes as measured through housing program evaluations. We have used the term "psychiatric" to encompass a range of mental health symptoms (e.g. depression, anxiety, hallucinations), quality of life measures as well as mental health diagnoses. The identified articles mainly explore changes in the levels of psychiatric symptoms, executive functioning, and social functioning/community adjustment as associated with one of three different dimensions of housing:

- a] housing environment/physical conditions;
- b] treatment services provided with housing;
- c] consumer preferences.

A few studies fall outside of these categories, with several measuring demographic variables that affect psychiatric outcomes in housing programs. They are described below.

III.2.a. Effects of physical conditions and integrated treatment services on psychiatric outcomes and community adjustment

General housing conditions

Four reports measured the effects of physical housing conditions (and housing environment) on psychiatric symptoms, social, and executive functioning. In a examination of effects of *general housing conditions*, Baker & Douglas [87] examined the neighbourhood, and exterior and interior conditions of the housing (group homes, boarding homes and private residences), and concluded that the quality and appropriateness of housing environments affected consumers' community adjustment. Results were not related to the type of housing but rather to physical conditions of the housing. Similarly, physical condition was correlated with mental health [88]. Quality and appropriateness of housing were evaluated in terms of "physical condition", adequacy of six identified key-life activities, and "overall appropriateness" as determined by the researchers. A study from Hamilton, ON [32] reports similar conclusions: that housing satisfaction influences coping among the SMI.

In contrast, two articles examined *housing type* as effecting different psychiatric outcomes. Browne & Courtney [89], looking specifically at two different types of housing in Australia (boarding houses or private homes), found that consumers living in boarding houses had a significantly lower level of global/executive functioning. These studies support conclusions reached by Kallert et al [90] in their examination of elderly persons with SMI. Caplan et al [91] also found that different types of housing (group homes versus independent apartments) and levels of substance abuse can affect neuro-cognitive outcomes such as perseverations, verbal memory and sustained attention. Their conclusions suggest that independent housing creates an environment of social exclusion or social isolation and therefore has negative affects on executive functioning for those with a dual diagnosis of substance abuse and mental illness. There was no difference between housing types

for those not dually diagnosed. However, these studies did not measure consumer preference for socialization, thus there is some doubt as to whether this social isolation is preferred or imposed.

Another study examined the effects of Section 8 certificates on psychiatric outcomes. Newman et al [92] found that access to and use of Section 8 certificates (rental subsidies) leads to positive mental health outcomes. In a later review of housing attributes Newman [38] critiques the housing research literature, noting that many studies have methodological flaws. However, one consistent positive finding was that independent housing was correlated with consumer satisfaction with both the neighbourhood and the housing.

Housing with Services

Several studies have examined the relationship between differing levels support services provided with housing and psychiatric symptoms. McCarthy & Nelson [93] examined psychiatric outcomes for current and former patients entering into supportive housing environments. They found that 5 months after entering supportive housing, personal empowerment, hospital recidivism, and instrumental role functioning were significantly improved. McHugo et al [62] compared outcomes for patients in two different types of housing with services arrangements. One arrangement provided services integrated with housing while the second arrangement offered housing services and psychiatric services independently of each other. Their findings indicated greater reductions in psychiatric symptoms for those in the integrated housing with services arrangement. In Norway, Brunt [94] reports on the psychiatric outcomes found in a comparison of three different types of housing settings: inpatient settings; small congregate residences and; independent living with support services. Brunt's findings indicated that residents in community settings (i.e. small residences and independent living) reported greater satisfaction in four life domains, living situation, social relations, leisure activities and work. These conclusions support the U.S. studies that report positive outcomes in any type of community tenure versus inpatient care, and thus does not add anything to understanding the most suitable types of community housing for those with SMI.

Drake et al [57], in addition to measuring retention outcomes, also examined the psychiatric outcomes of consumers in integrated treatment programs compared to those in standard treatment (treatment alone). The study participants unlike many other studies, most which have a large percentage of males, consisted primarily of young Afro-American women with a dual diagnosis who had previously been homeless. The experimental group, which was placed in integrated programs which consisted of mental health and substance abuse treatment along with housing services offered by the same provider, showed more progress towards recovery from substance abuse and greater improvement in alcohol use disorders.

Bolton [75] and Middleboe [56] examined the psychiatric outcomes for consumers in two different types of housing programs with integrated services: supportive

housing and group homes respectively. Bolton found that for persons in supportive housing, 84% achieved residential stability, 80% had successful management of their psychiatric symptoms and 73% achieved adult living skills goals. Middleboe found that those who had entered into a group homes programme in Denmark showed significant improvement in social functioning.

Consumer Preferences

Three articles reported findings on the effects of housing according to *consumer preferences or of housing first* approaches on psychiatric outcomes. In an early study on consumer preferences, Keck [33] found after 21 months that 16 of the 20 participants who had assistance in finding housing according to their preferences had significantly lower psychiatric hospitalization rates. Two articles reported on studies examining the effects of Housing First program models on psychiatric outcomes as compared to "Treatment First" (TF) or "Treatment as Usual" (TAU). Padgett et al [72] reported no significant differences in substance abuse levels between HF and TF participants. Their conclusions indicate that persons with dual diagnosis, despite having no requirements for treatment in a HF program, can remain stably housed without increasing their levels of substance use. Their conclusions therefore indicate that programs favouring immediate housing and consumer choice deserve attention as a feasible alternative to TF approaches. Greenwood et al [71] reported specifically on psychiatric symptoms outcomes for consumers in an HF program. According to their results, increased choice (i.e. Housing First) appears to lead to less psychiatric symptoms. These findings supported their conclusion that housing programs should focus on increased choice for consumers.

Special populations

Two articles reported on psychiatric outcomes for two different, specific populations: veterans and the elderly. We did not encounter references to another small but important special population: those with concurrent physical or cognitive disabilities. It may be that their primary needs are identified within the medical system and receive their primary services there. However, it is not clear that their housing needs are appropriately addressed. We also did not encounter references to other special populations such as those who are treatment resistant to psychotropic medication.

While mentally ill and homeless veterans in the U.S. constitute a specific service group, by virtue of government policy and funding mechanisms, although they have specific treatment needs, it is unclear as to whether their housing needs are different from the general SMI population. Mares et al [81] reported that prior residential treatment has little effect on the psychiatric/treatment outcomes for homeless veterans placed in supported housing. Along with their findings on retention outcomes for this population, these results provide support for direct placement of homeless veterans into permanent supported housing despite differences in their

treatment history. Examining psychiatric outcomes for the elderly, Kallert et al [90] report that the older and more severely disabled, who are living in nursing homes, deteriorate more quickly than those living in other settings (i.e. hostels, community residential care, with family, in their own homes). However, this finding may support work in the gerontology field that those in nursing homes do not fare as well as those in independent living arrangements.

III.2.b. Effects of consumer experiences and preferences on housing satisfaction

Over the past decade there has appeared a growing body of research focusing on the experiences and preferences of consumers. The majority of articles focus on the outcome of satisfaction with housing or quality of life (QOL) as affected either by consumer experiences or consumer preferences. Several of the articles dealing specifically with consumer preferences also report on and discuss the ways in which this variable affects retention and clinical outcomes. As discussed in the following section, the articles focusing on consumer experiences measure experiences according to either on of two factors:

a] Environmental factors, e.g. neighbourhood, living arrangement or;
b] Program and service/treatment factors.

III.2.c. Effects of Environmental Factors on consumer satisfaction and Quality of Life (QOL)

Some of the studies on the relationship of environmental factors and quality of life overlap with those on the effects of physical conditions and integrated treatment. Nonetheless they constitute a separate set of characteristics and outcomes. The majority of studies in this category report on living arrangements (e.g. number of roommates; physical condition of housing) as the factors affecting consumer satisfaction. According to several articles, living arrangements significantly affect consumer satisfaction and quality of life. At a general level, Wright & Kloos [95] have found that neighbourhood and apartment characteristics affect outcomes in terms of consumers' well-being. Similarly, Brunt & Hansson [96] reported that housing settings were found to be significantly correlated with satisfaction with living situation and global QOL measurements. Nelson et al [29] report that community adaptation is affected by the number of living companions, housing concerns, and having a private room. In an Australian study, Jones et al [97] indicate stability, privacy, identity, physical comfort, domesticity, and support to help create a "home" as critical factors in consumer satisfaction with their living arrangements. They suggest that these factors affect the ability to create a "home" out of housing. Their findings also indicate that renting a house, as opposed to owning, and a lack of personal relationships detract from creating a "home".

Comparing four different types of housing (board and care homes; transitional group homes; supervised apartments and; supported housing), Seybolt [98] found that housing characteristics were significant predictors of QOL and that those in group homes and supported housing generally reported higher QOL. Elliot et al [32] found more specifically that a lack of affordable accommodation, poor physical quality of housing, and financial difficulties created difficulties with housing and lower satisfaction levels. In conclusion they suggest that, due to the heterogeneity of the population, a continuum of housing options is needed. In regards to special category housing, Blid & Gerdner [86] report that, in Sweden, this type of housing policy arrangement had positive effects on quality of life. However, they indicate that special category housing also contributes to social exclusion and can be described as "institutional resignation".

Two studies diverged from this focus on living arrangements. A study by Friedrich et al [99] reported in a very generalized sense, that the participants who were living independently experienced problems with social isolation. The other, by Mares et al. [100], reported that client satisfaction was found to be independent of clinical variables and more associated with the income status of the neighbourhood (i.e. mean household income). They also report that clients who were living in their own place with other living companions and those who felt less side effects from medications were more satisfied with the quality of their housing.

III.2.d. Effects of program and service factors on consumer satisfaction

Consumer satisfaction with service became recognized as an important component of service delivery in the 1990's [29, 30, 32, 33, 101-109]. This relatively large set of studies found that different housing programs and associated services variously affect consumers' satisfaction and quality of life. These studies report on three main program types:

- Staffed group homes and boarding houses/hostels;
- Supported housing (on-site supports)[1]
- Supportive-independent housing (supports off-site or by a provider independent of the housing provider/landlord)

Of the studies examining quality of life and satisfaction in group home arrangements, only one reported positive outcomes. Leff et al [53] discuss the satisfaction outcomes of patients discharged from hospitals to staffed group homes. Their findings indicated that 80% of those discharged to staffed group living arrangements wished to stay in their new homes. They also report that, while

[1] During the 1990's the literature differentiated between supportive and supported housing. This debate has died down with the recognition that there are various models of housing supports. 110. Nelson, G., et al., *Housing Choice and Control, Housing Quality, and Control over Professional Support as Contributors to the Subjective Quality of Life and Community Adaptation of People with Severe Mental Illness.* Administration and Policy in Mental Health and Mental Health Services Research, 2007. **V34**(2): p. 89-100.

contact with relatives diminished, the social lives of patients were enriched. Kallert et al [90] and Browne & Courtney [89], in contrast to the findings of Leff et al, found worse outcomes for consumers in group homes compared to those in other living arrangements. The first study [90], conducted in Dresden, Germany, demonstrated that nursing homes and hostels predicted worse outcomes in terms of subjective quality of life and integration in family life. In conclusion, they suggest that policy should focus on supporting consumers to live in their own, independent homes.

In an Australian study comprised of 3231 participants, Brown & Courtney [89] found that, compared to those living independently in their own homes, those living in boarding houses experienced worse outcomes in terms of participation in meaningful activities, employment, and access to social support services. Similar results are reported from Dresden, Germany [90]. These findings on congregate care may reflect the preferences of the post-institutional cohort, who have not become provider dependent, for normalized living arrangements in the community. The reports of satisfaction and independent living are consistent across North America, Europe and Australia.

All of the literature on supported housing and consumer satisfaction, reported positive outcomes in this type of living arrangement. Findings of Mares & Rosenheck [111] indicated that consumers in independent living arrangements were more satisfied with their accommodation and quality of living. Brown [112] and Bolton [75] reported overall positive experiences and achievement of quality of life goals from participation in supportive housing programs. McCarthy & Nelson [113, p. 157] also report positive outcomes for consumers in supportive housing programs, where consumers reported "personal growth since entering supportive housing in terms of greater independence, more instrumental role involvement, and improved self-esteem and social skills." Bolton also reported a high level of achievement of socialization goals for those in supportive housing arrangements. Hanrahan et al [54] report a high level of satisfaction among those in community integrated living arrangements. They suggest that the levels of satisfaction found in their study are comparable to those reported in studies of independent living arrangements. Consumers also report a need for both privacy and communal spaces in supportive housing [114]. In a review of literature on supported housing, Fakhoury et al [39] indicate that those in supported housing have usually been found to be more satisfied with their housing and to show a preference for independent and less-restrictive living arrangements.

While there are few qualitative studies that capture the unique experiences of consumers in various types of housing programs, several were uncovered. Nelson et al [115, p. 98] reported that "since entering supportive housing, participants noted more stability in their lives and the beginning of journeys to recover positive personal identities, restore or develop new supportive relationships, and reclaim resources vital to leading lives with dignity and meaning." Additionally, qualitative work by Schneider [116] underscores the importance of consumer perspectives,

especially those with schizophrenia, in determining their preferred housing. Forchuk [117] captured the uncertainty and lack of stability of many housing arrangements for the SMI, and the upheaval and turmoil that this entails.

III.2.e. Consumer preferences/choice and housing satisfaction

In addition to reports on the effects of service/program factors in consumer satisfaction, another relatively large group of studies examines consumer satisfaction as an outcome related to consumer choice and preference. Several studies and reports have set the precedent for investigating the potentially significant benefits of housing according to consumer choice. For the majority, consumer preferences were strongly correlated with independent living and less restrictive settings/housing programs [118]. An early Canadian study into consumer preferences demonstrates these correlations. Involving interviews with "experts" and homeless women, Goering's [119, p. 33] findings indicate

- **"need for consumer involvement,**
- **preference for normalized independent living**
- **need for permanent housing with flexible supports."**

Research from the UK and Australia report similar findings. Owen et al [106], investigating clients of a community mental health service in Sydney, Australia, reported that clients preferred living alone (in their own homes) in environments with low levels of behavioural demand (less restrictive settings). This was "followed by living in government-subsidized housing, For-profit boarding houses were preferred over psychiatric group homes" while "shelter, privacy, food, and safety were highly valued housing attributes" [106, p. 628]. They also reported that certain preferences (i.e. preference for independent housing) were not associated with psychiatric symptoms of level of functioning. Fakhoury et al [120] found similar housing preferences in a sample of participants in London and Essex, England. Their findings show that the most frequently reported goal of consumers was to move to independent housing. Goals of "staying healthy" and increasing living skills were also rated as important to consumers. Additionally, Fakhoury et al reported that the goals cited by staff showed almost no agreement with those of consumers. Findings of this nature, lack of staff and consumer/client agreement, present a conflict that may be significantly harmful in increasing satisfaction and QOL for consumers.

Although preferences for living independently appear to prevail, some studies indicate problems with strictly adhering to the consumer choice. Schutt & Goldfinger [107] indicate that the requests for independent living arrangements were strongly correlated with higher levels of substance abuse. They caution against housing strictly according to consumer wishes due to the perception of a lack in substance abusers' ability to achieve stability in independent housing. However, studies such as that by Padgett et al [72] demonstrate that persons with dual diagnosis are able to achieve housing stability without increasing their levels

of substance abuse. Friedrich et al [99] also indicate difficulties with independent living, citing problems with social isolation as a disincentive to this housing approach. Given that several studies report positive tenure and psychiatric findings for independent living and housing according to consumer choice [33, 70, 71, 121, 122], rather than providing grounds against consumer preference the findings of Friedrich et al and Schutt & Goldfinger may indicate a need for a variety of housing options and programs. Elliot et al [32] support such a conclusion in their suggestion of a need for a variety of housing options due to the heterogeneity of the population.

Several further studies provide further evidence of positive outcomes for independent living and focusing on consumer choice. Nelson et al [110, p. 89] indicate that apartments (i.e. independent housing) provide consumers "with more choice/control over housing and support than group living arrangements." Self-efficacy is shown to be related to consumer preferences for less restrictive housing [108] while client satisfaction has been show to be related to clients' ability to be involved in activities of their own choosing (i.e. less restrictive living arrangements) [26].

This association of consumer preferences with housing satisfaction as identified by Champney & Dzurec [26] is echoed throughout numerous studies as outlined below. The findings of Nelson et al [67] demonstrated that consumers living in their preferred type of housing had the highest level of housing satisfaction. Comparatively, their findings showed that those living in temporary shelters had the lowest level of satisfaction. Several reported outcomes in this area are correlated more specifically to consumers' subjective determination of their quality of life/living (QOL). Consumer assessments of QOL have been shown to be directly related to being housed according to their preferences [33, 110, 123].

While several studies of consumer preferences examine supported independent housing arrangements, a few examine consumer satisfaction with this type of living arrangement without correlating it with preferences and consumer choice. These studies look primarily at the experience or environment of independent housing as the factor determining satisfaction regardless of whether there was any attempt to address consumer preference. Freed [124] compares the "supported housing model" (indicated as permanent independent housing) to the Continuum of Care model. This study reports that supported housing maintains quality of life and that tenants in this model reported higher satisfaction with the quality of living arrangements. Seilheimer and Doyal [108] similarly report positive outcomes of independent housing, suggesting that self-efficacy for consumers is increased by meeting preferences and living in less restrictive housing and residential settings.

III.2.f. Other Consumer experience

Several investigators have touched on the impact of community housing on family and social relationships. Family support improves when housing stability is achieved in either independent or community housing. Receiving family housing

assistance also improves family support[125]. Relationships with family, friends and service providers are also as important to the process of achieving stable housing [126]. Finally, consumers report increased empowerment in their own housing [127].

III.3. Cost-Effectiveness Evaluations for Housing Types and Services

A relatively small group of articles discussed the outcomes of cost-effectiveness evaluations for different housing arrangements. An initial set of studies examines cost-effectiveness as related directly to the type of housing provided [128]. Other studies compared usefulness of providing integrated services in reducing overall long-term costs while two additional studies looked specifically at the costs associated with Housing First as compared to standard care. Their conclusions are that housing first is as cost-effective as the linear models of housing, and in some instances, a more cost-effective approach.

III.3.a. Housing type, Housing First, and cost-effectiveness

Several studies revealed greater cost-effectiveness for supportive housing as compared to residential or treatment-as-usual (treatment services not integrated with housing services). In the area of residential treatment programs, French et al [129] found that a modified therapeutic community was more cost-effective than Treatment As Usual, showing higher economic benefit through more positive outcomes in the areas of employment, criminal activity, and utilization of health care services. Several other articles report on cost outcomes of more independent, supported or supportive, housing types. Morissette [130] reports that supported housing shows similar tenure and stability outcomes for less cost than residential programs. Similarly, Culhane et al [65] reported reduced shelter use, hospitalizations, length of stay per hospitalization, and time incarcerated for reduced costs in supported housing programs. In an earlier study, Culhane et al [64] found significant reductions in costs per person after placement through the NY/NY housing intiative. Freed [124] found economic benefits associated with supported housing programs that did not follow CoC models. The results of Freed's investigation show higher employment rates, more disposable income, and that tenants were able to contribute more financially to their place of residence when placed through a supported housing program.

Two Housing First studies report on the cost-effectiveness of such approaches. Dickey et al [131]) indicate that although the costs for treatment and case management were the same for CoC as for Housing First models, costs for housing were lower in Housing First. Gulcur et al [70] also report lower costs incurred in a Housing First model. Both of these studies conclude that due to greater housing stability and increased effectiveness, independent living arrangements and Housing First models are more cost-effective.

III.3.b. Integrating housing and services for long-term cost-effectiveness

Several studies which focus on the provision of services with housing demonstrate that treatment and other services are important in maintaining long-term cost-effectiveness and economic benefit when housing persons with SMI. Roberts et al [132] and French et al [129] demonstrate that when services are integrated with housing, better retention and economic outcomes are achieved when compared to standard, non-integrated treatment and housing approaches. Morse et al [133] also report greater cost-effectiveness for an integrated treatment approach as compared to a non-integrated approach. One study reported on by Rosenheck et al [82] diverges from these findings. They found that housing veterans through the HUD-VASH program, which integrates treatment and housing, was more expensive that standard and case-management only approaches. Greater cost-effectiveness and economic benefits may be attributed to the fact that housing stability and providing supports reduces the need for treatment and therefore reduces housing costs [131]. With this in mind, Dickey et al suggest that independent living arrangements may be more cost-effective in the long-term.

III.4. Non-housing services and housing outcomes

A few studies have reported on the effects of services, independent of housing, as they relate to housing programs and housing outcomes, usually in terms of retention. We identified only one article that discusses ACCESS in relation to housing and homelessness outcomes. This article by Rothbard et al [134] reports on connecting homeless persons with housing services but does not offer any conclusions on retention following housing placement. They demonstrate that ACCESS programs can be successful in connecting "hard-to-reach" homeless persons with community mental health services. Several other studies, examining Critical Time Intervention (CTI) and Assertive Community Treatment (ACT) programs, show direct correlations between retention and participation in the program. In a study comparing those involved in a CTI program with those receiving standard services only, Susser [135] found that those in CTI had about 67% less days homeless than the control group. Similarly, ACT programs have been found to reduce hospitalization [136] and to increase days in stable community housing, improvements in symptoms, life satisfaction, and perceived health status [137]. Other research by Mueser et al [138] has shown that participation in ACT and Intensive Case Management models reduces hospitalization and improves tenure outcomes, especially for those who are "high service users".

IV. Gaps in the research literature

Despite the significant volume of research on various housing models and outcomes, there are some notable gaps in this literature. Strikingly, in an era of multiculturalism and ethnic diversity, these investigations have not addressed the question of whether ethnic or cultural affiliation is related to housing preferences in location, or configuration of housing and support services. The needs of the aged mentally ill have not been addressed [139], nor has that of those with multiple handicaps such as physical conditions that require special accommodation, speech or hearing difficulties. Those with a criminal record are often excluded from housing programs, yet there is little evidence of the types of housing supports that work best for this population [140, 141].

Most housing studies, in all of the countries from which reports are available, focus on the urban population: those living near or in large metropolitan areas. With one exception [142], we were unable to locate studies that explored the needs, preferences or types of housing available to individuals in small towns and rural communities. This issue is of importance since rural communities often lack apartment-style accommodation.

While the literature largely supports a scatter-site, supported housing models, only a couple of reports from the UK, Australia and possibly one from Canada, note that there is a small but important segment of those with mental illness whose symptoms never remit sufficiently for them to function independently. The extent to which these hard to house individuals are inappropriately placed in nursing homes or long-term boarding home arrangements is not identified.

The aged mentally ill are also not well represented in the literature. Although they receive some reference as part of the nursing home and long-term care population [139] , little is known about those who do not need this level of care. Presumably a significant proportion of the elderly who have had life-long mental illness, (as opposed to those who acquire age-related depression, anxiety disorders, and dementia) do not require as many of the physical assists of elder care as they do the additional supports to daily living within the context of the disabilities their mental illness imposes.

Most housing programs also appear to target single adults, and make no reference to couples, parents who have mental illness and also have dependent children, and those with physical and well as mental health disabilities. Although there are housing programs that accommodate couples and families in Ontario, they have not been the focus of research activities and thus what is known about them comes from anecdotal evidence and preliminary investigations from an unpublished research project. With mental illness now treated primarily in the community we can expect to see these sub-populations growing and their needs for specific accommodation and support services recognized.

The research literature is also devoid of studies that include couples, whether married or cohabitating, With most people with SMI living in community settings,

and often with symptoms sufficiently under control to be actively involved in relationships, the number of people choosing to live with a significant other, and to have children, will increase. Their housing and supports will undoubtedly require a different group of services than the single cohort that has been the – almost – exclusive attention of research to date.

Apart from special populations, another noticeable deficit in this housing literature is the under-reporting and lack of reporting of program descriptions. Program evaluations are often restricted to reporting of outcomes without an examination of the process of housing. This includes program philosophy and staffing models. There does not appear to be a "template" for reporting on these programs. This makes it difficult to impossible to ascertain if the research is reporting on programs that fit the linear, continuum of care, or a supported housing model. Furthermore, these research reports lack sufficient detail to assist other providers interested in establishing housing programs to determine the components essential for acceptable, effective and efficacious housing.

V. Conclusions

This review of the literature sought out examples of "best practices" in housing persons with a persistent mental illness. While there is still discussion and some debate about different housing models, the best practice consensus is for a supported housing approach [44]. Best practices also lead to community integration [45].

We supplemented the review with an examination of practices reported in the gray literature of provincial and municipal authorities concerned with mental health services. This set of references reveals some **strong and consistent patterns in 'best practices' for housing for persons with persistent mental illness.**

The housing needs of persons disabled by mental illness are well documented. Over 150 research studies in the last 15 years have emphasized the need to provide

- **individualized living units,**
- **preferably not clustered in large projects which are stigmatizing.**
- **these units should be of the occupant's choosing**
- **be readily accessible to community services and amenities.**
- **they should not be contingent upon meeting pre-conditions of "housing readiness", sobriety, treatment compliance or use of mandatory services.**

Persons housed under this model consistently show **greater housing stability, reduced use of hospitalization and ancillary services, greater community integration and significantly higher satisfaction with quality of life.**

This model, commonly called 'housing first' is new to the Calgary community but has been successfully implemented in cities as diverse as New York, Portland and Toronto (which has a sizable number of units devoted to this model). Rental assistance and the availability of supports are essential components to success. Housing retention rates are significantly higher than in the traditional continuum of care model, ranging to over 80% after two to five years. Consumer reported satisfaction, quality of life, and psychiatric stability (reduced hospitalization) are all positively associated with this model. Furthermore, **it supports the expressed needs of psychiatric consumers for control and empowerment in their housing choices.** Housing first also relies on available housing stock scattered throughout the community, thus assuring community integration of the mentally ill and decreasing the possibility and negative consequences, of congregating too many disabled people in one location. Furthermore, this model provides community tenure for a seriously disabled population at a considerable cost savings over other models. Because it does not require the construction of specialized housing, or threaten neighbourhoods which may rebel with a NIMBY response, this housing model promises the most rapid, cost effective and permanent response to housing this vulnerable population.

Alternative housing, such as SRO's (single room occupancy units) were very popular in the early 1980's and still house considerable numbers of mentally ill people in various areas of Canada and the U.S. The city of Vancouver recently acquired several hotels specifically to provide this type of housing. They house persons who are able to be independent or semi-independent and can manage "activities of daily living" independently. People housed in these programs generally meet the criteria of those who are successfully housed by the 'housing first' model. The housing literature does not support their use as meeting the preferences of consumers. They have been seen as an inexpensive way to house individuals, but do not provide the basic housing structure for dignified independence (i.e. self-contained cooking and bathroom facilities). They also congregate large numbers of mentally ill people in one building, a feature strongly denounced by housing researchers, advocates and mental health consumers.

V.1. The hard to house

While the housing needs of a vast majority of those disabled by mental illness can be addressed by the 'housing first' model, there is a smaller, but distinct group of people whose mental illness is so disabling that they are not able to be self-sufficient even though they may not require the intensive treatment of an inpatient psychiatric unit. They range in age from their mid twenties to over 65. Not everyone responds adequately to psychotropic medication, and thus some continue to be symptomatic and a management challenge. They may be treatment resistant to refusing treatment, or treatment non-responsive. Many have concomitant physical disorders and some are physically handicapped. The literature makes scant mention

of this sub-group, despite the fact that they require large resources, both physical and financial [1].

The literature suggests that these "hard to house" individuals can be successfully accommodated in a variety of alternative settings: specialized boarding homes and hostels where there are varying degrees of support services and personnel available to meet basic daily needs and – for some – to provide supervision. Approved boarding homes which house one to three adults in a family setting provide a type of "family care" that meets the needs of some highly dependent and marginally functional individuals. This is in contrast to the large scale "boarding homes" that arose in the early 1980's that function as quasi-institutional warehouses and are no longer considered acceptable accommodation. Some of these have been successfully employed in areas as diverse as the UK, Australia and Montreal (among others). However, these models are not equipped to accommodate those with additional physical handicaps.

While this latter group may require a nursing home level of care, many long term care facilities have neither the staff nor orientation to provide appropriate care and support services to those whose primary diagnosis is a major mental illness. In a review of existing specialized nursing home facilities in Calgary we found a long term care facility that has evolved to accommodate only this hard to place group. Its philosophy and program orientation appear to be fairly unique and should be further evaluated for replication.

Thus the research on housing for persons with mental illness in many disparate locations (Australia, Canada, the Netherlands, New Zealand, Norway, Sweden, the UK, the U.S.) all supports a housing first model for most persons disabled by mental illness to meet the needs of a majority of this group, while recognizing that an important sub-group of high needs individuals will require supervised, sheltered accommodation which may include, in some instances, continued treatment approaches that supplement those initiated in inpatient units. These highly specialized units for the most severely disabled should parallel programs for the physically disabled.

Research on housing the mentally ill is now abundant and while efforts to refine some of the approaches for specific subgroups, and to recognize elements of cultural and ethnic diversity that may influence housing preferences, it is clear that we have sufficient understanding of the scope of the problems, the housing issues and needs that future efforts be placed on:

- refinements of the housing first model and its adaptation for special populations
- housing ethnically diverse people
- the housing needs of the ageing mentally ill
- housing the hardest to place
- housing needs of couples
- housing adults with dependent children (families).

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