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BEST PRACTICES

Concurrent Mental Health and Substance Use Disorders

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Best Practices

Concurrent Mental Health and Substance Use Disorders

Prepared by the
Centre for Addiction and Mental Health

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Acknowledgments

This opportunity to synthesize best practice guidelines from the rapidly growing research literature and expert opinion concerning the treatment and support for people with concurrent mental health and substance use disorders has been both challenging and rewarding for members of the Project Team. It is an aspect of our work for which we know the needs of people with these difficulties are undeniably great. The need of policy makers, planners, clinicians and support workers for up-to-date information and advice is critical.

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Executive Summary

Background, Definitions and Approach

Over the last two decades the co-occurrence of addiction and mental health problems among people seeking treatment and support has emerged as an important issue for those who plan and fund mental health and substance abuse programs, as well as for those who provide direct service. Concerns about concurrent disorders have been fueled by research showing the high prevalence of such co-morbidity and its implications for the course, cost and outcome of treatment and other support services.

The present project provides an updated synthesis of the research information and offers specific recommendations for the screening, assessment and treatment/support of this in-need population based on the highest quality research information that is available. The research synthesis has been combined with the advice and input of experts and other key stakeholders in the field, including consumers who have experienced the severe consequences of concurrent disorders. This synthesis is best seen as complementing the considerable amount of work that has preceded the project and the reader is encouraged to examine the key resource material drawn upon (Appendix A).

A national inventory of specialized concurrent disorders programs, entitled "National Program Inventory - Concurrent Mental Health and Substance Use Disorders" has also been developed and is published separately as a companion to this document.

Intended Audience

This report is intended to be a resource to managers and staff of mental health, substance abuse and integrated mental health/substance abuse services, as well as individual practitioners in the community who are faced with the challenges of providing good quality service to people presenting with concurrent mental health and substance use disorders. In addition, the report is targeted at planners, community developers and other decision-makers that work at a more systems level. Researchers and program evaluators will also benefit from this synthesis.

Defining Concurrent Disorders

In general terms, the concurrent disorders population refers to those people who are experiencing a *combination* of mental/emotional/psychiatric problems with the abuse of alcohol and/or other psychoactive drugs. More technically speaking, and in diagnostic terms, it refers to any combination of mental health and substance use disorders, as defined for example on either Axis I or Axis II of DSM-IV.

Substance use disorders is the diagnostic term that refers to a habitual pattern of alcohol or illicit drug use that results in significant problems related to aspects of life such as work, relationships, physical health, financial well-being, etc. There are two mutually exclusive subcategories – substance abuse and substance dependence (see Appendix B). In some cases, the use of substances *per se* (as distinct from abuse or dependence) negatively impacts people with mental health problems.

To people working in the substance abuse field using the DSM-IV as the basis for the definition of concurrent disorders may appear to be an overly medical and psychiatric approach. This approach, however, is the most widely used in the research literature on concurrent disorders, and it has been used in previous attempts to define best practices in this area. This practice is continued because:

- appropriate treatment and support in the mental health field, including drug therapies, comes after accurate assessment and diagnosis. It follows then that the same holds true for people with concurrent mental health and substance abuse problems;

- a mental health diagnosis based on DSM can be established by some 'non-medical' professionals, such as registered psychologists;

- a broad psychosocial rehabilitation approach is now widely regarded as essential for effective care *and support* of people with mental health problems. In the same vein, the treatment and support of people with concurrent disorders goes well beyond strictly medical/psychiatric interventions.

Acceptance of the medical/psychiatric framework underlying the DSM, or other mental health classification systems, may at times be one of the challenges that substance abuse workers and planners may need to overcome in bridging the worlds of mental health and substance abuse. It is also recognized that this option for classification may need to be adapted somewhat in those communities that do not have access to professionals who are qualified to make mental health diagnoses.

Recommended Approach to Classification

Over the past two decades, the term dual diagnosis was most commonly employed for the combination of mental health and substance use disorders. This term, however, also applies to co-existing psychiatric disorders and developmental disabilities. Other terms and acronyms that may be encountered will be CAMI (chemically abusing - mentally ill), or MICA (mentally ill - chemically abusing), or SAMI (substance abusing-mentally ill). The term concurrent disorders is preferred since it retains the emphasis on appropriate diagnosis as a guide to planning treatment and support, and distinguishes this area from other important work in the field of developmental disabilities and mental health. Thinking of mental health and substance use problems as a *plurality,* rather than a *duality,* is more consistent with the typical clinical presentation of the abuse of multiple drugs, including alcohol, and often more than one psychiatric diagnosis.

Clinicians and support workers need guidelines that will be helpful in dealing with *specific types* of concurrent disorders. Given the early stage of research that is both substance- and diagnosis-specific, sub-categories that make intuitive sense can be developed on the basis of clinical experience and the most common combinations of mental health and substance use disorders that present among the people seeking treatment and support. The following five sub-groups within the broad group of concurrent disorders are recommended:

Group 1: Co-occurring substance use and mood and anxiety disorders;
Group 2: Co-occurring substance use and severe and persistent mental disorders;
Group 3: Co-occurring substance use and personality disorders;
Group 4: Co-occurring substance use and eating disorders;
Group 5: Other co-occurring substance use and mental health disorders.

This report focuses on the first four groups.

Defining Integrated Treatment

A distinction between "program integration" and "system integration" is proposed to reflect innovations under way to improve care and support across treatment units or community agencies. Program integration means:

> *mental health treatments and substance abuse treatments are brought together by the same clinicians/support workers, or team of clinicians/support workers, in the same program, to ensure that the individual receives a consistent explanation of illness/problems and a coherent prescription for treatment rather than a contradictory set of messages from different providers.*

System integration means:

> *the development of enduring linkages between service providers or treatment units within a system, or across multiple systems, to facilitate the provision of service to individuals at the local level. Mental health treatment and substance abuse treatment are, therefore, brought together by two or more clinicians/support workers working for different treatment units or service providers. Various coordination and collaborative arrangements are used to develop and implement an integrated treatment plan.*

As with program-level integration, treatment plans that cross service providers may involve addressing the substance abuse and mental health disorders either concurrently or sequentially, but always in the context of a consistent and coordinated approach tailored to the unique needs and capacities of the individual.

Need for a Broader Psychosocial Perspective

Finally, with respect to the term integrated treatment, some comments are offered about the use of the word treatment in this context. In the mental health field, the focus on community integration for people with severe mental illness has been a dominant force over the past two decades. Coincident with this trend has been a shift toward a broad psychosocial rehabilitation perspective. This broader perspective values the critical role of acute treatment, medication management and symptom reduction in creating more long term positive outcomes. It also advocates for supporting the person in a wide variety of areas, including housing, employment, recreation and social networks, to name just a few. As a result of new thinking about community integration and specific policy initiatives that have supported the paradigm shift, a wide array of community support programs has emerged. This includes services that are consumer-run and which bring an experiential perspective to service delivery and support. The goals of these support services are broadly stated as helping persons with severe mental illness become reintegrated into the community, and improving their quality of life and that of their families.

These psychosocial support services are recommended as part of the overall package of care and support for people with severe mental illness (e.g. schizophrenia practice guidelines). Therefore, it must be emphasized that they also have a clear role in an integrated program or system for people with concurrent disorders, if they are required by the person on the basis of their needs and functional abilities. Although this is consistent with the advice of several experts in the field, it may not be immediately obvious given the use of the term integrated treatment. Thus, the term integrated treatment *and support* is preferred as it is more consistent with this broader psychosocial rehabilitation perspective.

Rationale For Best Practice Guidelines

The rationale for developing best practice guidelines for the treatment of concurrent disorders is grounded primarily in three areas of research and clinical experience:

- the prevalence of co-morbidity is high in the general and treatment-seeking populations and has largely been ignored in planning, implementing and evaluating both mental health and substance abuse services;

- substance abuse and mental health co-morbidity changes the course, cost and outcome of care and presents significant challenges for screening, assessment, treatment/support and outcome monitoring;

- substance abuse and mental health services in the community have typically worked in isolation and often from competing perspectives.

Best Practice for Concurrent Disorders at the Service Delivery Level

There are many entry points into a community's mental health and substance abuse systems. While people with concurrent disorders may be more likely to show up at some entry points than others (e.g., emergency and crisis services, homeless shelters), the research data would suggest that the prevalence of concurrent disorders will be high across all entry points. It is also important to note that in the mental health system, the duration of time with which a person with a concurrent substance use disorder is being treated or supported by a particular program is quite variable, ranging from very brief contact at a crisis service, to a few weeks or months in an acute treatment setting, to several years of regular contact and support through a community team, a supported housing program, a clubhouse or a consumer survivor initiative. Similarly, across substance abuse services in the community the opportunities for identifying someone with a mental health disorder are quite different in different settings (e.g., brief contact at a withdrawal management centre compared to several weeks or months of support from an outpatient or residential treatment program). In addition, the types of professional training, experiential knowledge and perspective also differ substantially across these settings. These factors will impact on managers, staff and consumers when initiating various strategies that might be recommended for identification, assessment and treatment/support. The role of the family/significant others will also be highly variable, for example, in providing collateral reports of substance abuse, or participating in family systems interventions. These important contextual factors notwithstanding, there is a need for evidenced-based advice in three areas:

a) Identifying if someone has a potential substance use disorder or mental health disorder (depending on the setting).

b) For those screened positive, conducting a comprehensive *assessment* that will investigate more conclusively the nature and severity of the substance use or mental health problem and how they are related. In areas with limited resources this step may out of necessity also include referral to another service for support in assessing the substance use or mental health problem, but this referral is made in the context of a coordinated system of local services, with follow-up to ensure an integrated treatment plan is developed.

c) For those determined to have a concurrent substance use disorder and mental health disorder on the basis of the assessment, providing *treatment/support* for the immediate problem resolution, and providing longer term monitoring, support and rehabilitation. As above, in some communities this step may also include referral to another service for support with the substance abuse or mental health problem but this needs to be done in the context of an integrated treatment plan, and a coordinated system of local services.

Screening

It is recommended that:

- all people seeking help from substance abuse services be screened for co-occurring mental health disorders. The advice is organized around Level I and Level II approaches that are tailored to the type of setting and time and resources available.

It is also recommended that:

- all people seeking help from mental health services be screened for co-occurring substance use disorders. The advice is organized around Level I and Level II approaches that are tailored to the type of setting and time and resources available.

Assessment

On the basis of a positive screen for either substance use or mental health disorders, it is recommended that a comprehensive assessment (a) establish diagnoses (b) assess level of psychosocial functioning and other disorder-specific factors and (c) develop a treatment and support plan that tries to sort out the interaction between the mental health and substance use difficulties for the individual, and work toward a positive outcome for both sets of problems.

Treatment and support

Co-occurring substance abuse and mood and anxiety disorders:

- an integrated approach to treatment/support is recommended;
- with the exception of post-traumatic stress disorder, and in the context of an integrated approach, a sequencing of the specific intervention (beginning with the substance abuse) is recommended, accompanied by ongoing assessment and adjustment of the treatment/support plan if the mood and anxiety disorder does not improve following an improvement in the substance use disorder;
- for post-traumatic stress disorder an integrated treatment approach that deals with both the post-traumatic stress disorder and substance abuse at the same time is recommended;
- the best current evidence for the treatment of concurrent mood and anxiety disorders, including post-traumatic stress disorder, is cognitive behavioural treatment.

Co-occurring substance abuse and severe and persistent mental illness:

- an integrated approach to treatment/support is recommended;
- within this integrated approach, it is recommended that interventions for substance abuse and severe mental illness be planned and implemented concurrently;

- the best current evidence is for a range of services that includes a staged approach to engagement and service delivery; outpatient setting; motivational interviewing and cognitive-behavioural treatment; harm reduction and comprehensive psychosocial rehabilitation supports, to name a few program/system components.

Co-occurring substance abuse and personality disorders:

- an integrated approach to treatment/support is recommended;
- within this integrated approach, it is recommended that interventions for substance abuse and borderline personality disorders be planned and implemented concurrently;
- evidence on the treatment of antisocial personality disorder and substance use disorders suggests addressing the substance use problem first;
- the best empirically supported treatment for borderline personality disorder and substance use disorders is dialectical behaviour therapy (DBT), which includes behavioural skills training.

Co-occurring substance abuse and eating disorders:

- an integrated approach to treatment/support is recommended;
- within this integrated approach, it is recommended that interventions for substance abuse and the eating disorder be planned and implemented concurrently unless there are compelling clinical reasons, such as life threatening factors, for focusing on one of the disorders first;
- the most promising intervention is a combination of medical management, behavioural strategies to effect change in the eating and substance abuse behaviour, and psychotherapy to address psychological issues.

Implications of Best Practice Guidelines at the System Level

Ryglewicz and Pepper[34] provide a helpful historical perspective on the increase in the number of people in the community with concurrent disorders. They note the historical separation of three very distinct clinical populations – mental patients, alcoholics and drug addicts. The former were in psychiatric institutions. Alcoholism was not seen as a problem until well along its course and, if treated at all, it was in highly specialized treatment facilities. Drug addiction was seen as confined to a small segment of society and viewed largely in a criminal context. These times have vanished. The shift has come primarily from the de-institutionalization of mental health services; the corresponding movement towards community support for people with severe mental illness[73]; and the increasing availability of drugs in the community since the 1960s. So rather than the three formerly separate clinical populations, we now have large groups of people in the community with overlapping and interacting mental health and substance use problems. The difficulty from the service delivery perspective is that community agencies, planners and policy makers have been stuck

in the *single-problem* mode of thinking because of the long established barriers between the treatment systems for mental health and substance abuse. The barriers came about as a result of separate training and development in the two fields, which became entrenched in separate funding, administrative and policy structures. An additional barrier is the *perceived* complexity, uncertainty, and level of difficulty associated with a more integrated approach. Taking an historical perspective on the emergence of the two systems helps to better understand the problems being faced by consumers who currently need to cross over the two systems.

A Less Prescriptive Approach at the System Level

Canada is just at the beginning stages of developing and trying out various strategies to better integrate services at the system level. There is very little published information that goes beyond an assessment of the many challenges and barriers to systems integration, to actual implementation and evaluation of different concrete strategies. In general, the current state of knowledge and practice wisdom is not sufficiently developed to offer best practice recommendations at the system level, so the discussion is more descriptive than prescriptive.

A Shopping List of Alternatives to Support System Integration

In synthesizing the information and themes, the following list of alternative strategies may support system-level integration:

- it is critical that people with concurrent disorders and their family members be meaningfully involved in planning and system development activities;

- given the pace of knowledge development and the extent to which innovative solutions are being explored there is a need for a mechanism to share information and lessons learned. A possible vehicle to achieve this would be a Canadian-based web site and potentially a national Concurrent Disorders Resource Centre that would support research dissemination and knowledge transfer;

- training and education must be the centrepiece of concurrent disorders program and system development. This includes cross-training, continuing education, formal curricula development and credentialing;

- a healthy mix of top-down commitment from funders, senior administrators and Executive Directors and bottom-up exploration of linkages by front- line staff based on individual cases is suggested;

- developing a joint inter-agency planning committee is a viable option to start the local system integration process with reasonable goals and time frames in order to maximize the chance of success and build motivation to continue the change process. There may be considerable value to a staged approach starting, for example, with informal coordination activities and information sharing; to perhaps a cross-training program and then to service agreements for assessment and treatment/support. It is important that there be a dedicated

resource person to support the planning and development process. It is also important to recognize that due to the complexity of integration across systems, the change process must be seen as evolutionary, non-linear and requiring time and patience;

- there is a need for clinical case consultation, including a potential role for telepsychiatry to support program and system integration in rural and remote areas;
- shared data systems that cross mental health and addictions should be explored and pilot tested;
- widespread adoption of blended service delivery teams which include a substance abuse counselor;
- formal inter-agency partnerships can be developed which go beyond joint planning exercises to the level of service agreements or potentially merged organizations;
- central access models are often recommended in both mental health and substance abuse reform processes. There is likely value in developing improved access models, including basic information about services and supports that are available, and which span substance abuse and mental health;
- policy initiatives can be undertaken at the funding level which would support integrated services and systems and provide a mechanism for demonstration projects.

Implications for Research

- there is wide variation in the level and content of integrated treatment at the program level. More research is needed on the effectiveness and cost-effectiveness of various interventions for many of the sub-groups within the concurrent disorders population, as well as fidelity measures to assess the nature and level of integration;
- there is wide variation in the level and content of integrated treatment at the system level. More research is needed on the impact of these system-level interventions on access to treatment and support, engagement and retention in the system, and the effectiveness and cost-effectiveness of various interventions for each of the sub-groups within the concurrent disorders population. Research should also investigate the value of fidelity measures to assess the nature and level of system integration; and urban/rural differences;
- two clusters of concurrent disorders were omitted from these best practice guidelines due to a lack of research evidence – concurrent disorders and sexual disorders, and concurrent disorders and pathological gambling. More research is needed in these areas;

- more research is needed on treatment/support for specific combinations of psychoactive substance use disorders (e.g., cocaine) and specific mental health disorders (e.g., depression)

- more research is needed on the link between substance use disorders and anger disorders that are independent of antisocial personality disorder;

- more research is needed on the link among dysfunctional parenting, child abuse and co-occurring mental health and substance use disorders;

- brief, validated measures are needed that would screen for mental health disorders among people seeking treatment for substance use disorders.

1. Introduction

The purpose of this project is to identify best practices related to concurrent mental health and substance use disorders. The project was initiated by Health Canada as part of a research agenda developed by the Federal/Provincial/Territorial Committee on Alcohol and Other Drug Issues.

The project was carried out under the direction of the Working Group on Accountability and Evaluation Framework and Research Agenda. The working group is appointed by the Federal/Provincial/Territorial Committee on Alcohol and Drug Issues. The mandate of the working group is to oversee the development and implementation of research studies that contribute to innovative substance abuse treatment and rehabilitation programs by identifying best practices, evaluating model treatment and rehabilitation programs, and identifying emerging issues; the knowledge is then disseminated across the country.

This project builds on a series of best practices publications including: *Best Practices - Substance Abuse Treatment and Rehabilitation* (Health Canada, 1999a); *Best Practices - Fetal Alcohol Syndrome/Fetal Alcohol Effects and the Effects of Other Substance Use During Pregnancy* (Health Canada, 2001); *Best Practices - Treatment and Rehabilitation for Youth with Substance Use Problems* (Health. Canada, 2001); and *Best Practices - Treatment and Rehabilitation for Women with Substance Use Problems* (Health Canada, 2001).

There are four main sections to this report, in addition to this brief introduction. In the next section (2) the considerable amount of work that has preceded this report and the key references drawn upon are noted. Concurrent disorders and integrated treatment are defined, and the steps followed in developing the recommendations are detailed.

In Section 3 best practice recommendations at the service delivery level are discussed. The recommendations cover three broad areas:

- screening;
- assessment; and
- treatment and support

Further, separate recommendations for four sub-groups within the broad category of concurrent disorders are provided:

- co-occurring substance abuse and mood and anxiety disorders;
- co-occurring substance abuse and severe and persistent mental illness;

- co-occurring substance abuse and personality disorders; and
- co-occurring substance abuse and eating disorders.

Each section addresses prevalence and etiological issues; treatment implications and clinical issues; and a review of the evidence and expert opinion in terms of sequencing and type of interventions. The recommendations for best practice are drawn from this evidence and expert opinion.

Section 4 discusses the implications of the best practice guidelines at the system level, drawing upon focus groups held in Quebec, Ontario and British Columbia; and a key informant survey that tapped issues related to system as well as program integration. Mechanisms are identified for system-level integration and alternatives for improving work at this level are discussed. Section 5 offers some additional recommendations for research. Each of the subsections on treatment/support ends with the best practice recommendations for that particular combination of disorders.

1.1 Project Scope

The primary focus of this project is on individuals with a co-occurring substance use and mental health disorder. There is a small literature available on various issues related to special sub-populations such as youth, the elderly, women, the homeless, cultural groups including aboriginal people, and people with co-occurring physical or developmental disabilities. While the scope of this effort has not included specific recommendations for these special populations it is felt that the general recommendations for a more integrated approach should apply across the board. Other more specific recommendations (e.g., specific interventions for specific sub-populations) may emerge from other projects initiated by Health Canada for the development of best practice advice in substance abuse treatment that is specific to certain populations (e.g., youth, elderly).

It is also beyond the scope of the project to investigate and recommend best practices for either the *early identification or prevention* of co-occurring substance use and mental health disorders in the community at large. It is recommended that such work be considered at a future date.

Further, there is insufficient literature on which to base best practice guidelines for the co-occurrence of substance use and *sexual disorders*; substance use and *attention deficit and hyperactivity disorder* (ADHD); and substance use disorders, mental health disorders and *pathological gambling*. These concurrent disorders are grouped in the "other" category, not to downplay their importance, but rather to reflect the current state of research knowledge and practice wisdom in these areas of concurrent disorders. It is recognized that there is a beginning literature that links substance use and abuse problems with problems of intimacy and sexual expression, including deviant sexual expression[158]. These patterns include a link between addictions (e.g., cocaine, and high sex desire and acting out; addictions and

survivor issues[159]; and addictions and sex offending issues[160]). Integrated mental health and substance abuse treatment is likely feasible with these groups. Recommendations for specific interventions await further research.

The scope of this work is also limited to making recommendations for best practice either *within* or *across* specialized substance abuse and mental health programs, while recognizing that individuals with concurrent disorders also commonly present to more generic community services such as primary care, community health centres, services for the homeless, correctional services, and social welfare. Issues and strategies relevant to best practices for screening, assessment and treatment/support of people with concurrent disorders in such settings may be extrapolated from our recommendations for specialized substance abuse and mental health services.

Finally, the main focus of this work is at the service delivery level, including the discussion of specific types of interventions. It is beyond the scope of this project to evaluate the applicability of the many hundreds of highly specific behavioural, social work and drug therapies that have a place in the treatment of individual mental health and substance abuse disorders (e.g., psychotherapeutic drug treatments for schizophrenia). Similarly, the specific interactions of the many psychotherapeutic drugs for the treatment of mental health disorders and alcohol and other psychoactive drugs have not been examined in depth. This level of detail is best covered in best practice guidelines for individual mental health disorders and substance use disorders. However, any promising drug therapies for specific concurrent disorders are noted.

2. Background, Definitions and Approach

2.1 Background to the Report

Key Points

- This report integrates and complements considerable research and development that has been done with respect to concurrent disorders.
- Knowledge in this area is rapidly expanding.
- The report is intended primarily for managers and staff of mental health and substance abuse programs, and individual practitioners who work with people with concurrent disorders.
- Policy-makers, planners, researchers and program evaluators will also find it useful.

Within the last two decades the co-occurrence of addiction and mental health problems among people seeking treatment and support has emerged as an important issue for those who plan and fund mental health and addiction programs, as well as those people who provide direct service. Concerns about concurrent disorders have been fueled by research showing the high prevalence of such co-morbidity and its implications for the course, cost and outcome of treatment and other support services.

In response to this growing concern, and the urgent need for wider use of research-based treatment and community support strategies, Health Canada issued a Request for Proposals (RFP) for the development of best practice guidelines for the treatment and rehabilitation of individuals with concurrent substance use and mental health disorders. The RFP also called for the development of a national inventory of specialized concurrent disorders programs. This inventory, entitled "National Program Inventory - Concurrent Mental Health and Substance Use Disorders", is published separately as a companion to this document.

2.1.1 Concurrent Disorders are a Recognized Priority

Considerable work in Canada and elsewhere has set the stage for the development of best practice guidelines for concurrent disorders. The general framework for community integration for people with severe mental illness has been supported at the national level,[1,2] and in several provincial initiatives. Within this general framework of community treatment and support, most of the individual provinces and territories have sponsored work leading to specific program and policy recommendations. For example:

- The "Comité permanent de lutte à la toxicomanie" of the Québec Government placed comorbidity as a priority in its recommendations to the provincial government in both 1996 and 1997.[3,4] In consultations held throughout the Province of Quebec in 1995 and 2000, concerns were expressed about concurrent disorders within all age groups;[5,6]

- In Ontario, individuals with concurrent disorders have been identified as a priority population by both the addictions and mental health service delivery systems.[7-9]

- An Inter-ministry Task Group in British Columbia was formed to investigate how to improve services for individuals who have a severe mental illness and substance use disorder. The resulting report[10] recommended several complementary approaches for the development of improved services for people with concurrent disorders.

Separate national initiatives have developed best practice guidelines for mental health services and supports,[11] and substance abuse treatment.[12] Practice guidelines have also been published in the peer-reviewed literature for specific disorders, such as depression,[13] schizophrenia,[14-16] alcohol, cocaine and opioid use disorders[17] and nicotine dependence.[18,19] Guidelines have also been developed for psychiatric evaluation.[20]

Some of these practice guidelines, such as the Canadian guidelines for the treatment of schizophrenia,[16] and the guidelines for psychiatric evaluation,[20] include recommendations for treating and supporting people with co-occurring substance use disorders. Further, the best practice literature for mental health disorders provides many recommendations for optimal treatment methods, including pharmacological interventions, that will apply to people with psychiatric problems with or without a concurrent substance use disorder. Walker et al.[21] give an overview of developments in the substance abuse field concerning best practice guidelines, including the work by:

- the American Psychiatric Association;

- the American Nurses Association;

- the National Association of Social Workers in the U.S.;

- the well-known placement criteria of the American Society of Addiction Medicine;[22]

- the Treatment Improvement Protocols (TIP) published by the Center for Substance Abuse Treatment;[23] and

- various international efforts.

As with similar work in the mental health field, many of these recommendations may apply to people in substance abuse treatment with or without concurrent disorders.

It is also important to note that planning, policy development and funding bodies in other jurisdictions have also called for the synthesis of research and clinical opinion regarding the development of best practice recommendations for people with concurrent disorders. For example, the Center for Substance Abuse Treatment (CSAT) in the U.S. commissioned a Treatment Improvement Protocol (TIP) in 1994 concerning the assessment and treatment of people with co-existing mental illness and alcohol and other drug abuse.[24] Given the similarity in goals between the TIP project and the current project, the results from this previous work have been valuable for this undertaking.

One important aspect of the previous work done to date has been the recognition of the importance of system-level* factors in meeting the needs of people with concurrent disorders.[27] This includes the need for better coordination of services across networks of mental health and substance abuse treatment providers. The importance of better integrating mental health and substance abuse services at the systemic level has been highlighted in several reports.[28-30] Systemic issues are considered in some detail in Section 4.

2.1.2 The Rapidly Growing Literature

In summary, there is no shortage of ideas and discussion about the needs of people with co-occurring mental health and substance use disorders, and how these needs might most effectively be met. Relevant research also continues to be undertaken and reported at a rapid rate. In addition to the better quality of individual research projects over the past decade, several excellent and highly relevant books and literature reviews have been published in the past few years.[34-41] A program manual on MICA (mentally ill-chemical abuse) by Kathleen Sciacca is available[42] and there is at least one internet list serve on the topic (http://users.erols.com/ksciacca). Recently, an issue of Clinical Psychology Review[43] was dedicated to the topic of concurrent disorders, with separate articles providing a review on concurrent substance use disorders and *specific* mental health disorders (e.g., personality disorders; mood and anxiety). A new book by Mueser and colleagues[44] will soon be published and it provides the most recent summary of work on concurrent substance abuse and severe mental illness (e.g., schizophrenia, bipolar illness). Recent work by Mueser and colleagues[45] also provides an excellent review of etiologic theories about the interaction of substance abuse and severe mental illness.

The present project provides an updated synthesis of the research information and offers specific recommendations for the screening, assessment, and treatment/support of this in-need population based on the highest quality research information that is available. This research synthesis has been combined with the advice and input of experts and other key stakeholders in the field, including consumers who have experienced the severe consequences of concurrent disorders. This synthesis is best seen as complementing the considerable amount of work that has proceeded the project and the reader is encouraged to examine the key resource material drawn upon. To complement the list of references at the end of the report, the particularly important resource material are listed in Appendix A.

* System level, as definited by Longest[25], and used by Aday et al.,[26] refers to the "resources (money, people, physical infrastructure and technology) and the organizational configurations used to transform these resources into health care services in a given geographic area".

2.1.3 Intended Audience

This report is intended to be a resource to managers and staff of mental health, addictions and integrated mental health/substance abuse services, as well as individual practitioners in the community who are faced with the challenges of providing good quality service to people presenting with concurrent disorders. In addition, the report is targeted at planners, community developers, and other decision-makers that work at a more systems level.

2.2 Defining Concurrent Disorders

Key Points

- A large number of people live in the community with overlapping and interacting mental health and substance use problems. Knowledge in this area is rapidly expanding.
- In diagnostic terms, 'concurrent disorders' refers to any combination of mental health and substance use disorders.
- Substance use disorders include both substance abuse and substance dependence, and can also refer separately to many different psychoactive drugs, including alcohol.
- People with concurrent disorders are a very diverse group reflecting many different combinations of mental health and substance use disorders.
- Clinicians and support workers need best practice guidelines for different sub-categories within this diverse group.
- Five sub-groups are recommended.
- These categories are subject to change as our research knowledge grows concerning different combinations of mental health and substance-specific disorders, (e.g., cocaine and depression, alcohol and schizophrenia).

2.2.1 The DSM Classification System

In general terms, the concurrent disorders population refers to those people who are experiencing a *combination* of mental/emotional/psychiatric problems with the abuse of alcohol and/or another psychoactive drug. Technically, it refers to any combination of mental health and substance use disorders, as defined for example, with the classification scheme of Diagnostic and Statistical Manual of Mental Disorders.[46]

DSM-IV is made up of five groups of diagnostic categories calls "axes". Axis 1 includes the major psychiatric disorders and diagnoses, such as the psychoses, mood disorders, etc. Formally, Axis 1 is the group of categories for coding Clinical Disorders and Other Conditions which may be a focus of clinical attention (e.g., family/vocational problem). Axis

II is for Personality Disorders and Mental Retardation exclusively; Axis III is for General Medical Conditions. Axis IV is for Psychosocial and Environmental Problems (i.e., stressors related to Axes I and II) and Axis V is for Global Assessment of Functioning.

Substance use disorders are part of Axis I and is the term that refers to a habitual pattern of alcohol or illicit drug use that results in significant problems related to aspects of life, such as work, relationships, physical health, financial well-being, etc. There are two mutually exclusive sub-categories – substance *abuse* and substance *dependence*. In some cases, substance *use* (as distinct from abuse or dependence) negatively impacts people with mental health problems. This will be discussed further along in the document.

Based on DSM-IV classification, concurrent disorders refers to a substance use disorder in combination with an Axis I or Axis II mental health disorder. Using a system like DSM-IV as the basis for the definition of concurrent disorders may at times seem like an overly medical and psychiatric approach. However, this approach for classifying concurrent disorders is the most widely used in the research literature, and has been used in previous attempts to define best practices in this area. This practice is continued because:

- appropriate treatment and support in the mental health field, including drug therapies, comes after accurate assessment *and diagnosis*. It follows then that the same holds true for people with concurrent mental health and substance abuse problems;

- a mental health diagnosis can be established by non-medical professionals, such as registered psychologists;

- a broad psychosocial rehabilitation approach is now widely regarded as essential for effective care *and support* of people with severe mental health illness. In the same view, the treatment and support of people with concurrent disorders goes well beyond strictly medical/psychiatric interventions.

Acceptance of the medical/psychiatric framework underlying the DSM, or other mental health classification systems, may be one of the challenges that key stakeholders and planners need to overcome in bridging the worlds of mental health and substance abuse. It is also recognized that this option for classification may need to be adapted somewhat in those communities that do not have access to professionals who are qualified to make diagnoses.

2.2.2 Alternative Terminology

Over the past two decades, the term dual diagnosis was most commonly employed for the combination of mental health and substance use disorders. Other terms and acronyms that may be encountered will be:

- CAMI (chemically abusing - mentally ill);

- MICA (mentally ill - chemically abusing);

- SAMI (substance abusing-mentally ill).

The term concurrent disorders is preferred since it retains the emphasis on appropriate diagnosis as a guide to planning treatment and support, and distinguishes this area from other important work in the field of developmental disabilities and mental health. Also, thinking of mental health and substance use problems as a *plurality*, rather than a *duality,* is more consistent with the typical situation people present with, namely the abuse of multiple drugs, including alcohol, and often more than one mental heath diagnosis.

The Treatment Improvement Protocol (TIP) from CSAT contains an excellent section on concepts and definitions of the many specific mental health diagnostic categories that fall under the general rubric of dual or concurrent disorders.[24]

Given the heterogeneity of the population subsumed under the general rubric of concurrent disorders, several authors[24,34,47] have argued for the definition of more homogeneous sub-groups in order to develop concrete clinical advice and treatment evaluation criteria. Sub-typing this population is not an easy task, as researchers and clinicians have often grouped several diagnostically distinct categories into one group said to have concurrent disorders.[35]

The problems related to psychoactive substances are themselves multidimensional[48] and one needs to consider:

- the frequency and pattern of *use*;
- the level of *dependence*;
- the *consequences* that result.[48]

Further, being high on one dimension (e.g., use) does not always mean the person is high on the others (e.g., dependence). Complex patterns of *multiple* drug use[44,49,50] also make it difficult to distinguish among the literally hundreds of combinations of mental health and substance use disorders when one goes to the level of specific substances combined with specific mental health problems. Further, within the substance abuse field itself, there is no working consensus on how to classify important sub-groups of people with substance-related problems, and researchers continue to explore the relationship between alternative classification schemes and Axis I and II co-morbidity.[51] This complexity and lack of consensus notwithstanding, there is much work to draw upon within some specific diagnostic categories (e.g., schizophrenia, personality disorders, bipolar disorders), and which has focused on specific patterns of substance use (e.g., cocaine and depression).

2.2.3 Interaction Models

Within DSM- IV[46] it is critical to distinguish between substance abuse and substance dependence (see Appendix B for criteria for abuse versus dependence). This distinction is important since the intensity and goals of required treatment are different for these sub-groups (e.g., the appropriateness of non-abstinence goals). DSM-IV also provides a structure to distinguish between psychiatric disorders that are substance-induced and those which are not. Rosenthal and Westreich,[39] Lehman,[52] and other experts in the field, go further and draw distinctions among several models of the *interaction* of the mental health disorder and the use of psychoactive substances (e.g., psychiatric symptoms developing as a consequence of substance use but persisting after cessation of substance use; substance abuse and psychiatric symptomatology meaningfully linked over time). This approach, adapted from Weiss and Collins,[53] basically builds upon the DSM-IV tradition of establishing to what extent the psychiatric symptoms are substance-induced or not. Mueser and colleagues[45] provide an excellent review of four etiologic theories of the interaction of severe mental illness and substance use disorders. The models they distinguish are:

- common factor models;
- secondary substance use disorder models;
- secondary psychiatric illness models ;
- bi-directional models.

While the evidence for and against these various models has important implications for screening, assessment and treatment/support planning, they do not provide a typology *per se* for sub-grouping consumers for the purpose of developing best practice guidelines.

Many other researchers in the field have attempted to delineate the numerous ways in which mental health disorders can interact with co-occurring substance use disorders.[45,54,55] A distinction that is commonly made is that of the primary/secondary disorder. This distinction attempts to ascertain (where possible) which problem is designated as primary (i.e. the underlying or pre-existing problem), and which is secondary (i.e., the disorder that developed later temporally, or potentially developed as a consequence of the presence of the first one).[56-58] For people with severe and persistent mental illness this approach is no longer recommended, given the highly variable course of symptom development.[44] However, the approach may be of value for other types of concurrent disorders such as concurrent mood and anxiety disorders (see Section 3.3.1).

2.2.4 Stage of Treatment/Motivation

Approaches to understanding and categorizing the person's "stage of treatment" or "motivation for change"[49-62] provide important insights for assessment and planning a course of treatment and support. Thus, one might consider these stages as appropriate for broader classification purposes. However, the categories generalize across virtually all the various concurrent disorders and do not serve as an appropriate foundation for best practice guidelines. The Prochaska and DiClemente model, while applying to addictions, also presents a problem with some concurrent disorders as motivation will vary with the pattern of the disorder. For example, in the manic phase, a person may be very enthusiastic about treatment and express much confidence in motivation for change. However, symptoms of a less manic phase may make it difficult to act on the expressed motivation.

Clinicians and support workers need guidelines that will be helpful in dealing with specific types of concurrent disorders. Given the early stage of research that is both substance- and diagnosis-specific, sub-categories that make intuitive sense can be developed on the basis of clinical experience and the most common combinations of mental health and substance use disorders that present among the people seeking treatment and support. Along this vein, there are two approaches that have been followed to develop sub-groupings.

2.2.5 Classifying on the Basis of Severity

An approach outlined by Ryglewicz and Pepper[34] considers the *mix* of substance abuse and mental health disorders in the categorization scheme, using categories that reflect the relative *severity* of each set of problems, as well as psychosocial functioning, motivation, and vulnerability to even small amounts of alcohol and other drugs. For example, their first of four sub-groups includes those with a *major mental illness and a major problem with alcohol and/or drug abuse, dependence, or addiction*. Their second group includes those with a *major mental illness and a special vulnerability to the effects of alcohol and other drugs.* This approach is very similar to the schema presented by Rosenthal and Westreich,[39] and adapted from Weiss et al.[47] whereby four categories are used which correspond to the cells of a two-by-two table (high – low psychiatric severity and high – low substance abuse severity). A Case Manager Rating Form which assesses severity of psychiatric symptoms, substance abuse severity, functional disability and treatment noncompliance[63] is cited by Rosenthal and Westreich[39] as being helpful in placing the individual into the proper category.

2.2.6 Approach Based on DSM

The second approach is to form sub-categories based on a broad DSM-IV classification of mental health disorders, and which reflect the most frequent disorders presenting with substance use disorders in the population seeking treatment and support (e.g., mood and anxiety disorders; personality disorders; severe and persistent mental illness). This approach does not seek to sub-type further on the basis of pattern or severity of the concomitant substance abuse problems.

Both the severity approach and the DSM diagnostic strategies have merit and there is not a consensus among the experts as to the preferred method; although all agree some sub-categorization is necessary. For this project, the diagnostic approach, compared to the classification method adopted by Ryglewicz and Pepper (see Appendix C)[34] and Rosenthal and Westreich,[39] is favoured since it:

- is more directly linked to a preferred course of treatment and support, including pharmacological symptom management which is highly disorder-specific;
- still recognizes the need for comprehensive and ongoing assessment to sort out the interaction of the substance use and symptoms within each of the broad categories;[52]
- still retains considerable flexibility within the categories to discuss common patterns of presentation, for example, the high percentage of consumers presenting to methadone programs who are dependent on opiates, and who have a personality disorder; and the high prevalence of schizophrenia and alcohol abuse among clients of psychiatric units, community mental health centres and programs for the homeless.

It is acknowledged that one's preferred approach to sub-grouping people with concurrent disorders may depend on your location in the community service network; which doorway to the treatment and support system the person has entered (i.e., a mental health or substance abuse treatment entry point); and whether the program/system has access to a physician/psychiatrist. In this report, however, we go to some length to recommend a more seamless, holistic approach so that the person with concurrent disorders might expect a similar approach and quality of service regardless of the entry point to the system.

The following categories are based on the more common presenting groupings of concurrent mental health disorders, recognizing the wide variation that will exist within each category in terms of use, abuse and potential dependence on one or more psychoactive substances. It is recommended that these five sub-categories within the broad group of concurrent disorders be used as a schema for developing, and subsequently refining, implementing and evaluating the best practice guidelines.

The five groupings are:

Group 1: Co-occurring substance use and mood and anxiety disorders;*
Group 2: Co-occurring substance use and severe and persistent mental disorders;
Group 3: Co-occurring substance use and personality disorders;**
Group 4: Co-occurring substance use and eating disorders;
Group 5: Other co-occurring substance use and mental health disorders.***

* While technically speaking bipolar affective disorders fall within the broad DSM-IV mood and anxiety category, they are typically considered as 'severe and persistent' mental illness and are included in our second group.

** It has been the experience of the writers that the majority of people with co-occurring substance use disorders and problems related to anger, impulsivity and/or aggression will also fall into this category.

*** Including but not limited to sexual disorders and pathological gambling.

This report focuses on the first four groups. There is a need to keep a developmental perspective in mind that would:

- recognize the many age-dependent associations within and across mental health and substance use disorders;
- emphasize that an aspect of understanding the phenomenon of concurrent disorders is to understand the pathway leading up to this situation for the individual; and
- highlight the importance of early detection and intervention.

It is beyond the scope of this project to focus on these developmental issues in depth.

2.2.7 Current Limitations of the Data Regarding Substance Use

These five categories are based primarily on the clustering of different types of mental health disorders within the broad grouping of substance use disorders. This categorization scheme belies the tremendous complexity and heterogeneity within substance use disorders themselves. In the substance abuse field one can think in terms of the level of risk associated with the amount and pattern of use. This substance use may or may not result in particular consequences that would support a formal diagnosis of substance abuse. Further, the presence of these negative consequences is important but not a necessary or sufficient criterion for a diagnosis of substance dependence. This three part conceptualization – use, abuse and dependence – is further complicated by at least 10 different classes of psychoactive substances (e.g., alcohol, opiates, stimulants, inhalants), and the many specific types of drugs within these drug classes (e.g., cannabis, cocaine, heroin, glue). Complex categorization schemes that might more adequately convey the heterogeneity within the substance use disorders themselves were considered.* After careful consideration, however, it was felt that the research literature and practice wisdom, were not yet strong enough at this level of detail on which to base best practice guidelines. It is recommended, however, that the five-category scheme be seen as a classification model that is open to change on the basis of further diagnosis-specific and substance-specific research on concurrent disorders.

* For example, a four dimensional model based on (a) mental health disorder; (b) substance; (c) high risk use/abuse/dependence and (d) level of functioning.

2.3 Defining Integrated Treatment

Key Points

- The terms "integrated", "sequential" and "parallel" treatment have been used in previous attempts to define best practice in this area.
- An important distinction must be made between program-level and system-level integration.
- Integration at either or both the program or systemic levels is to be encouraged on the basis of research.
- Critical features of program- or system-level integration include that there be an agreed upon and well communicated treatment plan and a consistent and well coordinated implementation of that plan.
- Clinicians/support workers in an integrated program or system should provide specific services concurrently or sequentially, depending on the particular combination of concurrent disorders and other individual factors.
- The wide variation in expression, risk and need associated with concurrent disorders typically converge in significant problems in social functioning.
- Both program- or system-level integration exist in *degrees* and it is important that it be monitored to be sure the key principles are in place and sustainable.
- Integrated treatment and support for people with concurrent disorders, particularly those with severe and persistent mental illness includes the provision of a broad range of both counselling-therapy strategies and psychosocial rehabilitative supports.

Integrated treatment for people with concurrent disorders arose in the early 1980's as a solution to the difficulties and poor outcomes associated with treatment and support being provided across the two separate systems of mental health and substance abuse services. Given the pivotal role that this term plays in the research literature, and our subsequent best practice recommendations, it is important that it be defined early in this report.

Drake et al.[64] succinctly describe the developmental history of integrated treatment in a recent review. Most of the other major reviews of treatment models for concurrent disorders also include a definition and description of integrated treatment, typically in contrast to sequential* or parallel treatment.[24,34,37,39,65,66]

* Serial treatment is a term often used synonymously with sequential treatment.

2.3.1 Integrated vs. Sequential vs. Parallel Treatment

Reviews commissioned in the U.S., in the mid-1980's by the National Institute of Mental Health (NIMH), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), and the National Institute on Drug Abuse (NIDA), identified the problems encountered by people with concurrent disorders with treatment being provided across the two systems of care.[67,68] Recommendations called for better integration of mental health and substance abuse treatment. This was followed up with a demonstration program which developed and evaluated various interventions within the context of integrated models. While there are several different ways in which treatment integration can be operationalized the following definition will be used:

> *mental health treatments and substance abuse treatments are brought together by the same clinicians/support workers, or team of clinicians/support workers, in the same program, to ensure that the individual receives a consistent explanation of illness/problems and a coherent prescription for treatment rather than a contradictory set of messages from different providers (adapted from Drake and Mueser.)*[64]

The more comprehensive integrated program models include common mental health interventions, such as medication management and support services, as well as assertive outreach, intensive case management, individual, group and family counseling and, on occasion, intensive day or residential components. Some of these features such as assertive outreach and intensive case management are critical features of Assertive Community Treatment (ACT) teams which can include substance abuse counselors. As the models for integrated treatment evolved, they incorporated interventions tailored to the person's stage of recovery,[61] motivational interviewing and a range of other service activities (see Drake and Mueser[64] for an overview, and Mueser et al.,[44] for a detailed outline of specific interventions within their integrated treatment model).

In contrast to integrated treatment, sequential treatment was a term that referred to one treatment (either mental health or substance abuse) followed by the other treatment, but *through referral* to another agency, or specialized unit within the same treatment organization.[65] An example would be a person receiving counseling for panic attacks at a community mental health center and who is referred to a local substance abuse treatment service to deal with frequent binge drinking. The terms sequential or serial treatment were meant to imply that first the person would deal with one set of problems and then the other, but through two agencies or treatment units working largely independent of each other.

A parallel model of treatment referred to the simultaneous, concurrent treatment of both the psychiatric disorder(s) and substance use disorder(s) by two separate agencies, or two specialized units within the same treatment facility.[65] As with the definition of sequential treatment, the term parallel treatment was meant to imply that clinicians in the two agencies or treatment units were working largely independent of each other.

Hence, the primary distinction between sequential, parallel and integrated treatment has been the implication that the latter involves *concurrent treatment in terms of concepts, personnel, program and facility.*[24]

2.3.2 The Need for New Systems Terminology

While the three terms reflected very distinct approaches when they were first proposed, their definitions have become somewhat dated and blurred with the advent of a more systems approach to treatment,[69] and the exploration of various strategies to improve the coordination of services spread along a continuum of care that spans treatment units or agencies in the community.[31,32,33,45,70-72] Specific examples of system coordination strategies are discussed in more detail in Section 4.4.2. In short, there are many ways to better integrate an individual's treatment and support across units within the same facility or across community agencies. This increasing collaboration blurs the distinction between the old terms of integrated treatment and sequential or parallel treatment.

In this report, a distinction between "program integration" (as per the original integrated model), and "systems integration" to reflect innovations underway to improve care and support across treatment units or community agencies is proposed. The earlier definition of integrated treatment is used as the definition of program-level integration. However, even in the context of an integrated program *(i.e. one treatment/support plan with the same clinician(s) and support worker(s) in the same program)* specific interventions for substance use and mental health disorders may be delivered either concurrently or sequentially depending on the particular combination of disorders, and the urgency that may arise within the individual circumstance (e.g., life threatening issues that must be given priority). Concurrent or sequential interventions in an integrated program model will be delivered in the context of an agreed upon treatment and support plan, and a consistent and co-ordinated team approach tailored to the unique needs and capacities of the individual.

System integration means:

> *the development of enduring linkages between service providers or treatment units within a system, or across multiple systems, to facilitate the provision of services to individuals at the local level. Mental health treatment and substance abuse treatment are, therefore, brought together by two or more clinicians/support workers working for different treatment units or service providers. Various coordination and collaborative arrangements are used to develop and implement an integrated treatment plan.*[*]

As with program-level integration, this treatment plan may involve addressing the substance use and mental health disorders either concurrently or sequentially, but always in the context of a consistent and coordinated approach tailored to the unique needs and capacities of the individual.

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* This definition is adapted from the definition of systems integration employed in the ACCESS project for the homeless in the U.S. [71]]

Integration at the program level has been the subject of considerable research.[35,44,64] Models for system integration, however, have been much less frequently evaluated. This situation is likely to change over the next several years as accountability demands increase to show that models to improve service coordination ultimately translate into improved consumer outcomes and cost-effectiveness. This variation in research evidence, notwithstanding, there is no compelling evidence at present to recommend program-level integration over system-level integration, or vice versa. Subsequent recommendations about the importance of integrated treatment are meant to encourage integration from *both* program-specific and systemic perspectives.

2.3.3 The Need to Monitor Integration Activities

Organizational and larger systemic changes often require culture shifts and *time to evolve*. For example, what may begin as a collaborative initiative to cross-train staff may evolve into supplementary program components (e.g., a mental health agency may begin offering an substance abuse support group). It may then evolve further into a more fully integrated service (e.g., all consumers entering a mental health/agency are screened for substance abuse, and if needed, their individualized treatment and support plan covers both the mental health and substance use disorder).

Since efforts toward system integration may evolve over time, including the drift away from initial intentions, the development and widespread application of monitoring measures is recommended to assess the degree and type of system integration that has been achieved within any one organization that spans both addictions and mental health, or within a larger network of programs in the community. Integration should not be permitted to devolve into treatment that places responsibility for integration solely on individual therapists who may, for example, be more comfortable dealing with mental health issues to the exclusion of the substance use problems or vise versa.

2.3.4 The Need for Psychosocial Supports

In the mental health field, the focus on community integration for people with severe mental illness has been a dominant force over the past two decades.[73] Coincident with this trend has been a shift toward a broad psychosocial rehabilitation perspective. This broader perspective values the critical role of acute treatment, medication management and symptom reduction in facilitating more long-term positive outcomes. However, it also advocates for supporting the person in a wide variety of areas, including housing, employment, recreation, and social networks. As a result of new thinking about community integration, and specific policy initiatives that have supported the paradigm shift, a wide array of community support programs has emerged. This includes services that are consumer-run, and which bring an experiential perspective to service delivery and support.[74] The goals of these psychosocial support services are helping persons with severe mental illness become reintegrated into the community, and improving their quality of life and that of their families.

The psychosocial support services are recommended as part of the overall package of care and support for people with severe mental illness (see for example, the schizophrenia practice guidelines).[15] Therefore, we would like to emphasize that they also have a clear role in an integrated program or system for people with concurrent disorders, if they are required by the person on the basis of their needs and functional abilities. Although this is consistent with the advice of several experts in the field,[44] it may not be immediately obvious given the widespread use of the term integrated treatment. Thus, we prefer the term integrated treatment *and support* as it is more consistent with this broader psychosocial rehabilitation *perspective.*

2.4 Rationale for Best Practice Guidelines

Key Points

- The prevalence of co-morbidity is high in the general and treatment-seeking populations and has largely been ignored in planning, implementing and evaluating both mental health and addiction services. Knowledge in this area is rapidly expanding.
- The high variability in prevalence rates across studies results from studying different sub-groups of people in different settings with different methods.
- Co-morbidity changes the course, cost and outcome of care and presents significant challenges for screening, assessment, treatment/support and outcome monitoring.
- Substance abuse and mental health services in the community have typically worked in isolation, and often from competing perspective.

2.4.1 Prevalence Rates

Among consumers in substance abuse treatment and mental health settings, and among members of the general population who need treatment and support but who have yet to seek help, the prevalence of co-occurring mental health and substance use disorders problems is very high. Despite the high prevalence, there is a reported lack of knowledge and training as to how best to identify and address needs.

a) Prevalence among the general population

Much of the literature on rates of comorbidity in the general population has been contributed by studies conducted in the United States. The report from the well-known Epidemiology Catchment Area (ECA) study[75] is frequently cited as one of the first demonstrations of the high rates of co-morbidity in the general population. They found that the prevalence of substance use disorders among people with a concurrent mental disorder was 29% compared to 16% in the general population. A more recent report by Kessler et al.[76] using data from the 1990-1992 National

Comorbidity Study, found a total of 28.8% of the general population aged 15-54 had a concurrent (i.e., in the last year) alcohol and/or drug and mental disorder diagnosis. For those people with any current substance use disorder 42.7% showed a concurrent mental health problem; while 14.7% of those presenting with a psychiatric disorder showed a concurrent substance use disorder. This pattern of increased probability of mental health problems among people with substance use disorders, and vise versa, is mirrored in studies emanating from many developed countries.[77-79]

In Canada, and using methods and definitions which paralleled the U.S. National Comorbidity Study but with an age range that was 10-years wider (15-64), 18.6% of respondents from the 1990 Ontario Mental Health Supplement presented with one or more current alcohol, drug or mental health problems.[80] A more recent report on co-morbidity of alcohol use and mental health disorders in the Ontario sample[81] found that 55% of those with a lifetime alcohol diagnosis also qualified for a lifetime mental health diagnosis.

Epidemiological surveys suggest that while only a minority of individuals with alcohol or other substance abuse problems in the community enter treatment,[82] the most severe cases with *multiple* concurrent mental disorders are the most likely to be treated.[78,83,84] Kessler et al.[76] have also shown that those in the general population with concurrent disorders present the highest probability of seeking treatment. This is corroborated by data from the 1992 National Longitudinal Alcohol Epidemiologic Survey which showed that respondents with past-year alcohol use disorders were twice as likely to seek help for their alcohol problems if they had a concurrent drug use disorder or major depression; and they were five times more likely to seek help when both these concurrent conditions were present.[85] An unpublished secondary analysis of the Quebec Health Survey of 1987 provided data consistent with these findings in the U.S.[86] Such findings are congruent with the recognition that those who seek help are the most severe cases in the general population.[83]

b) Prevalence among people seeking help

Clients of substance abuse treatment services who are diagnosed with a psychiatric disorder also use more health services generally,[87] and are more often readmitted to treatment.[88,89] The frequent use of expensive hospital and emergency services, and the persistence of both mental health and substance use disorders over time, contributes significantly to the extremely high economic cost associated with treatment and ongoing support for these individuals.[90,91]

Several studies have assessed the prevalence of concurrent substance use and mental health disorders among those people seeking help from either mental health or substance abuse treatment settings. Recent summaries of this literature,[40,66] clearly show that the rates of alcohol and other drug problems are consistently higher among people seeking help from mental health services than the general population. Compared to the general population, the lifetime risk for developing alcohol dependence is 21 times more likely among individuals with an antisocial personality; six times more likely among those suffering from mania; four times more likely in people with schizophrenia; and twice the risk among those suffering from panic

disorder, obsessive-compulsive disorder, dysthymia, major depression or somatization disorder.[92] Weisner and Schmidt[93] found that 38% of clients of mental health services in a California county reported one or more alcohol dependence symptoms in the previous year, compared to 27% in the general adult population and 65% in the criminal justice system. In the same study, 21% of mental health clients reported the use of three or more types of illicit drugs compared to 1% in the general population, and 12% of people arrested for a criminal offence.

Similarly, clients in substance abuse treatment have higher rates of mental health problems than are found in the community at large. Since those who suffer from concurrent disorders have a higher probability of seeking treatment than their counterparts in the general population,[76] the vast majority of individuals admitted to treatment exhibit one or more clinical symptom.[94-96] Studies have reported that close to 77% of those treated for alcohol-related disorders have experienced at least one other psychiatric disorder during their lifetime.[97] Most clients suffer from at least one disorder of mood or anxiety;[95,98-100] and the rates for personality disorder range from 53% to 100%.[101-106] Ross et al.[105] found that 68% of clients attending an outpatient treatment facility in Toronto qualified for a concurrent psychiatric diagnosis; the most common being antisocial personality, phobia, anxiety, and depression.

c) Summary

There is wide variability in the prevalence estimates derived from both community samples and from treatment populations. The variability comes from such factors as:

- the assessment method and criteria employed to establish diagnoses;
- the treatment/support setting;
- the demographic characteristics of the community or service recipients.[44]

2.4.2 Relationship to Treatment Outcome and Other Clinical Issues

It is very difficult to disentangle the relationship between a substance use disorder and a mental health disorder from the perspective of "what caused what". This makes it difficult to draw firm conclusions about the causal role of *either* substance use or mental health disorders in determining the course of either single or concurrent disorders, and the influence of various factors on long-term recovery.

Given the difficulty in establishing antecedents and consequences in much of the research, it is safer to speak of issues of *association* rather than *causality*. As noted by Drake and colleagues in a recent review,[35] it was two decades ago when the high rate of substance abuse among young people with schizophrenia began to be seen as a factor complicating community adjustment.[107-109] Since then, research has shown that concurrent disorders are associated with:

- the risk of relapse and re-hospitalization;[109]
- depression and risk of suicide;[109]
- incarceration;[109]
- homelessness;[110,111]
- family problems;[109,112]
- an increased risk of child abuse and neglect;[113,114]
- domestic violence;[115]
- increased risk of violence;[116]
- HIV infection;[117-118]
- the increased risk of victimization;[119-121]
- the special needs of women in treatment;[122,123] and
- functional difficulties such as unemployment or work instability[109,124,125] and chronic interpersonal conflicts.[109]

Outcomes associated with mental health treatment and ongoing community support seem to be negatively affected by co-occurring substance abuse.[126] In particular, there is a strong association between poor outcomes for schizophrenic patients and the *combined* influence of medication compliance/non-compliance, current substance abuse and lack of outpatient contact.[127] The converse also appears to be the case with the outcome of substance abuse treatment which is significantly and negatively associated with psychiatric impairment (or at least generalized psychological distress).[128] This seems to be particularly the case among opiate, alcohol and cocaine abuse populations.[129-131] Co-existing mental disorders increase the probability of abandoning treatment prematurely;[130,132-136] which in turn negatively influences treatment outcome.[137,138] Early dropout from treatment can be explained by the fact that many of these clients encounter difficulties in engaging in treatment and establishing a therapeutic alliance.[139-145] Treatment engagement and therapeutic alliance are interconnected since the beneficial effects of treatment are positively correlated with continuation in treatment.[146-154] If they do remain in treatment, the amount of attention and the length of treatment required by these individuals often exceeds the services normally planned by the program.[132] Given the higher risks of relapse, higher likelihood of re-entering more expensive services, and the high likelihood of leaving needed services prematurely, effective assessment and treatment of people with concurrent disorders could help reduce health, social and correctional service costs.

2.4.3 Service Integration, Coordination and Planning

There is widespread agreement that individuals who have co-occurring mental health and substance use disorders have typically had to seek treatment and ongoing support from two very separate service delivery systems (see for example, Ridgely et al.[27] and the TIP concurrent disorders protocol).[24] This is particularly true for people with concurrent substance abuse and severe and persistent mental illness (Group 2) and many people with concurrent personality disorders (Group 3). Whether the issues are discussed from a U.S. perspective and some of the nuances of their health care system, or from the perspective of more universal access to Canadian health care, the same basic theme emerges about the historical separation of the two systems of care. Furthermore, most analysts agree that these historical barriers are at the heart of many of today's problems experienced by consumers with concurrent disorders who are trying to access help in the two systems.

Many factors account for the historical separation of the two systems. History, notwithstanding, it is generally agreed that having two systems of care for people with such an overlap in their constellation of needs has had more negative than positive effects on continuity of care and consumer outcomes.

Having two separate systems of care has usually meant parallel or sequential services being delivered *across* the two systems with little or no coordination and less than optimal outcomes. Poorer outcomes are thought to result from various systematic factors, including:

- compounded feelings of stigma;[155]
- competing perspectives on the primary problem; and
- the additional burden on the consumer to retell their story, deal with additional transportation issues and, in general, follow through on two separate treatments which may offer conflicting therapeutic advice plans.[156]

Examples of conflicting approaches to treatment are abstinence versus harm reduction goals, and philosophical differences in the use of confrontational techniques (abstinence goals and confrontation being more common in some substance abuse treatment settings). The acceptability of psychoactive medication that helps manage the symptoms of mental illness also remains controversial in some substance abuse treatment settings.

In the worst case scenarios, the delivery of services across the two separate systems of care and support has meant the individual, and often the person with the most severe constellation of problems, has simply been referred across to the 'other side'. Such referral has also typically meant little or no case management, to ensure contact has been made, and that the person has been successfully engaged in the system. Dropout rates from concurrent treatment programs that are not well coordinated can run as high as 60%.[157] Thus, high attrition from programs can be seen from the perspective of the low accessibility and acceptability of the services being offered. These concerns about poor coordination are echoed in research studies that have examined the coordination of services across mental health and substance abuse services and potential solutions.[155] These issues are also quite

salient in testimonials and personal stories of consumers participating in community system-level planning exercise,[31] including the focus groups held for the current project (see Section 4.2.1).

2.4.4 Summary

In summary, there is a very strong rationale for the development of the best practice guidelines:

- there are many people with concurrent disorders in the general population and already in contact with the health care system;
- outcomes are poorer and the costs of care from the consumer, family and service delivery perspectives are very high;
- there is a long history of poor coordination and often competing perspectives across the mental health and substance abuse treatment systems.

2.5 The Approach to Defining Best Practice for this Project

Key Points

- The current high interest in best practice guidelines is related to larger trends in health care to improve consumer outcomes and reduce variation in care and associated costs.
- Best practices are usually developed at the service delivery level (e.g. clinical guidelines) but can also be developed at the system level.
- Given the current state of knowledge in the area of concurrent disorders the focus in this report is at the service delivery level; implications and alternatives are identified for implementing best practices within service delivery systems.
- Best practices can be defined on the basis of scientific evidence and/or expert consensus; some combination of these methods is usually employed.
- The approach used in developing this report has been a detailed review and synthesis of the research literature, expert and key stakeholder opinion, including consumers.
- More research is needed about the impact of best practice guidelines on the attitudes and behaviour of health care policy makers, planners, and providers, and on consumer health outcomes.

Defining best practice guidelines is a burgeoning area within health care. Best practices have been defined as "systematically developed statements to assist practitioner and patient decisions about appropriate care for specific clinical circumstances".[161] These guidelines are typically directed at the service delivery level; that is they offer guidance to clinicians, therapists, social workers, etc. on the most effective, or cost-effective, services that can be delivered directly to health care consumers. There are, however, some examples of guideline development that explicitly aim for recommendations of best practice for health service *organizations* (e.g., performance measurement mechanisms and processes), and *systems* of care (e.g., policy development, planning and funding mechanisms and processes).[162]

2.5.1 Evidence-Based Versus Expert Consensus

There are two main models for developing best practices[163, 164] – the scientific *evidence-based* model and the *expert consensus* model. In the scientific evidence-based model, best practice guidelines are extrapolated from a comprehensive literature review.

Several concerns have been raised about this strictly research-based approach.[165,166] These include:

- reliance on a body of literature that is subject to pervasive publication bias;
- lack of attention to multicultural issues;
- limitation on generalizability; and
- over reliance on the "gold-standard" research design, the randomized control experiment.

The expert-consensus model is typically conceived of as an adjunct to the scientific evidence-based model whereby the opinions of experts are used to fill the gaps in the scientific literature. The four main methods of consensus formation are:

- informal processes;
- formal consensus development conferences;
- nominal groups;
- Delphi methods.[163,164,167]

Criticisms of this approach often centre on the fact that the process of selecting experts is often a reflection of professional hierarchies which may result in no more than a group guess.[168]

It is often necessary to develop treatment recommendations on the basis of less than conclusive research literature, and to use expert opinion to advantage. Thus, a mixed methodology is often used that takes the best information from published research studies and combines some form of expert review and consensus development.[165] The specific features of the combined methodology is often driven by the available budget.

2.5.2 Approach

The guidelines developed in the present project are based on:

- an extensive review of relevant literature;
- a synthesis of this literature according to the professional judgment and experience of the study team, including what the literature does not tell us, and a summary of other issues that must be taken into account in extrapolating from the published studies;
- review and advice of an expert panel concerning our general approach and results of our knowledge synthesis;
- a review of preliminary recommendations by key stakeholders in the mental health and substance abuse systems as obtained by a key informant survey;
- focus groups with consumers who have experienced concurrent disorders in order to validate our synthesis of research and expert opinion with their needs and lived experience;
- further synthesis of the above by the research team and additional review and input from the expert panel;
- in addition to ongoing process management the draft report was reviewed by Health Canada to ensure consistency with the study objectives and obtain additional input from the various provincial and territorial representatives on the Health Canada Working Group; and
- preparation of final recommendations.

It is important to be clear that the guidelines emanating from this project are not based on:

- a formal *rating* of the strength of the research evidence (however, highest priority was given to research from experimental or quasi-experimental studies). Based on this research evidence we also distinguish, where possible, between the 'best' and the 'most promising' interventions for a given combination of concurrent disorders; or
- a *consensus* among the members of the expert panel (however, areas of strong agreement as well as dissenting opinion have been noted in an anonymous fashion).

These methodological decisions are based largely on budgetary constraints as well as the current state of the literature in the area of concurrent disorders. Future attempts to update these best practice guidelines may have a larger literature to draw upon in some areas, and therefore will be more suited to these methodological improvements over our work.

3.0 Best Practice for Concurrent Disorders at the Service Delivery Level

Appendix D provides an overview of both the mental health and substance abuse service delivery systems in Canada. This section summarizes the main points from this overview and the implications for best practice guidelines at the service delivery level.

Mental Health Services:

- mental health reform has given high priority in policy and program development to a wide range of community mental health services and some developing social supports that are designed to maintain people with severe mental illness outside of institutions or inpatient care;

- there has been steady progress in involving consumers and families in the design and delivery of services and supports;

- general practitioners and many other health care specialists provide the largest proportion of primary mental health care in Canada;

- mental health reform has also involved closures and/or reductions in the size of the large provincial psychiatric hospitals, and a corresponding increase in the role of general hospital psychiatric units in providing acute care and crisis response;

- the prevalence of mental health disorders and concurrent disorders is very high in correctional systems across Canada and there is a close and complex relationship between the mental health system and the criminal justice system;

- there are also several population sub-groups with particularly high needs for mental health services and which must be carefully considered when planning and delivering services for people with concurrent disorders (e.g., the homeless; aboriginal people; perpetrators and victims of family violence and child abuse).

Substance Abuse Services:

- the alcohol and drug treatment system in Canada has evolved through several stages, and is currently grounded in a broad biopsychosocial perspective;

- medical and psychiatric professionals play an important, but increasingly less dominant, role in assessment and treatment for substance abuse compared to other mental health and substance abuse counseling professionals, such as psychologists, social workers and certified substance abuse counselors;

- reform of substance abuse services has given high priority to developing a wide range of community-based services typically defined along a 'continuum of care' – withdrawal management, comprehensive assessment, brief intervention, more intensive outpatient or day treatment, short or longer term residential treatment and continuing care;

- related to the continuum of care approach is a stepped-care model, whereby clients are first engaged in the least intrusive level of care and then "stepped-up" or "stepped-down" on the basis of results from ongoing outcome monitoring;

- there is more emphasis on prevention and early identification than is evident in the mental health sector. Many services adopt a harm reduction approach; others adhere to abstinence as the primary goal of treatment. There is considerable variation in this regard across the provinces and territories;

- self-help groups (e.g. Alcoholics Anonymous) play an important role in local treatment systems across the country;

- the prevalence of substance use disorders is very high in correctional systems across Canada, and there is a close but complex relationship between the substance abuse treatment system and the criminal justice system;

- as with mental health, there are also several population sub-groups with particularly high needs for substance abuse treatment services and which must be carefully considered when planning and delivering services for people with concurrent disorders (e.g., youth, the homeless, Aboriginal people).

In summary, there are many entry points into a community's mental health and substance abuse systems. While people with concurrent disorders may be more likely to show up at some entry points than others (e.g., emergency and crisis services; homeless shelters), the research data would suggest that the prevalence of concurrent disorders will be high across all entry points. It is also important to note that in the mental health system, the duration of time with which a person with a concurrent substance use disorder is being treated or supported by a particular program is quite variable. This can range from very brief contact at a crisis service, to a few weeks or months in an acute treatment setting, to several years of regular contact and support through a community team, a supported housing program, a clubhouse or a consumer survivor initiative. Similarly, across substance abuse services in the community the prospects for identifying someone with a mental health disorder are quite different in different settings (e.g., brief contact at a withdrawal management centre compared to several weeks or months of support from an outpatient or residential treatment program). In addition, the types of professional training, experiential knowledge and perspective also differ substantially across these settings. These factors will impact on the ability and interest among managers, staff and consumers in initiating various strategies that might be recommended for identification, assessment, and treatment/support. The role of the family/significant others will also be highly variable, for example, in providing collateral reports of substance abuse, or participating in family systems interventions. These important contextual factors notwithstanding, there is a need for evidenced-based advice in three areas:

1. identifying if someone has a potential substance use disorder or mental health disorder;

2. for those screened positive, conducting a comprehensive *assessment* that will investigate more conclusively the nature and severity of the addiction or mental health problem and how they are related. In areas with limited resources, this step may out of necessity also include referral to another service for support in assessing the substance use or mental health problem, but this referral is made in the context of a coordinated system of local services, with follow-up to ensure an integrated treatment plan is developed;*

3. for those determined to have a concurrent substance use disorder and mental health disorder on the basis of the assessment, providing *treatment/support* for the immediate problem resolution, and to provide longer term monitoring, support and rehabilitation. As above, in some communities this step may also include referral to another service for support with the substance use or mental health problem, but this needs to be done in the context of an integrated treatment plan and a coordinated system of local services.

This section is organized into three sub-sections corresponding to screening (Section 3.1); assessment (Section 3.2); and treatment and ongoing support (Section 3.3) of people with concurrent disorders. Each sub-section, in turn, recognizes that the person may initially enter either a mental health service, a substance abuse service, or an integrated program and that regardless of the entry point the consumer with a concurrent disorder should expect the same general approach and quality of care.

3.1 Best Practice in Screening for Substance Use and Mental Health Disorders

3.1.1 General Issues in Screening

Attempts to treat substance abuse among people with mental health disorders, and vice versa, must begin with *recognition*.[169,41] The purpose of screening is not to determine the complete profile of psychosocial functioning and needs, or to make a diagnosis; but rather to identify whether the individual *may* have a mental health or substance abuse problem that warrants more comprehensive assessment.

In general, the goal is to have screening instruments that are brief; do not identify a high proportion of false positives; and have good reliability and validity (see Appendix E for definitions of these and other terms related to screening instruments). As noted above the needs and opportunities for identification vary considerably across different types of mental health and substance abuse treatment settings. It is not possible to recommend one approach or screening tool. Therefore, the recommendations are organized into two levels of effort; with the second level requiring more time and expertise than the first, but yielding potentially greater benefits in terms of reliability and validity. Further, this is an area of research that is expanding rapidly and several new screening instruments are available or on the horizon, but which have yet to be validated in either the substance abuse or mental

* As discussed earlier high quality integrated treatment and support can be achieved through systems as well as program integration.

health population. Where appropriate new instruments that are being developed or tested, and which may be appropriate for people with concurrent disorders in either or both populations are mentioned.

In this review the work of Dr. Kate Carey and colleagues[40,170,178] has been drawn on for screening. The seminal work of Drs. Robert Drake, Kim Mueser and colleagues has also been valuable.[156] The reader is encouraged to review the reports and literature reviews published by these research teams. Several of their reports are listed in Appendix A, and in the References.

The following points concern terminology and some other general issues:

- while it is important to have screening tools that have excellent psychometric properties, a distinction can be made between what is needed for clinical decision-making, compared to what might be needed for a highly controlled research study. In other words, even though there may be no proven screening tool available at present which will work in all settings, there is still value in asking a few simple questions, or otherwise having a high index of suspicion using readily available information. We include these approaches under Level I screening strategies;

- in an integrated system it will be critical to have the linkage between services for screening and assessment well-established and monitored in order to reduce the burden on the consumer to "retell their story". This was an important theme identified in the consumer focus groups;

- research generally supports the value of getting information about alcohol and drug use from different sources to corroborate information obtained solely from the self-report of the consumer. Although self-reported information about alcohol and drug use can be considered reliable and valid in some contexts, self-reports are not as trustworthy in other contexts (see Carey[170] and Carey & Correia[41]). For example, concerns about self-report may be particularly important when working with a person to be admitted to a psychiatric service and for whom admission of substance abuse has potential negative consequences in terms of ongoing treatment and support (e.g., loss of housing). It is generally acknowledged that laboratory tests which screen for substance use disorders on the basis of biochemical markers are much less sensitive and useful with people with concurrent disorders than are collateral reports from family, friends or past records;[41]

- there is a preference for screening tools and procedures in the public domain; that is they are available at no cost to the service provider;

- services which are providing support to a consumer for an extended period of time, such as an intensive case management program or a clubhouse for people with severe mental illness, will be able to monitor the situation over a longer period of time. Thus, screening need not only occur at intake into the service. The judgment of the case worker can have a high predictive value as the consumer becomes better known and trust is established;[171]

- in the mental health field there is an important distinction between diagnostic screening instruments and those based on psychological distress/functioning. Similarly, for substance use disorders, there are diagnostic screening instruments and there are those based on consequences or pattern of substance use. Both methods among the Level II screening approaches are considered;

- most screening tools for substance use disorders are focused on either alcohol or other drugs but not both. Given the common pattern of multiple substance use, one can miss important substance-related problems if one screens only for alcohol problems or only for drug problems. Few instruments are available which screen for both alcohol and other drug problems. CAGE-AID[172] and the Dartmouth Assessment of Lifestyle Instrument (DALI: Rosenberg et al.[173]) are notable exceptions;

- there are important developmental issues to consider when selecting a screening tool or procedure for consumers of different ages. Some instruments are designed specifically for adolescents;[174,175]

- finally, there are critical issues related to the use of different screening instruments within different cultural sub-groups without first having tested their psychometric properties and appropriateness in the particular sub-group of interest. Other practical and methodological issues concern the literacy level of the consumer; the extent to which they need support in answering screening questions; and the influence of lending support to the person in completing the questions on the reliability and validity of the answers (e.g., impact of wanting to answer in a socially desirable way[41]).

3.1.2 Screening for Substance Use Disorders

a) Level I Screening Procedures

Within this level four alternatives are described. These alternatives require very little time and effort on the part of clinicians/support workers during the initial contact with the consumer, or within the context of an official intake process. Sensitivity and specificity values derived with a group of people with concurrent disorders are not available for all the alternatives listed. However, such measures and approaches may still have value as part of a clinical decision-making process, especially in settings where more psychometrically sophisticated approaches may not be appropriate during the early period of contact or intake to the program (e.g., acute crisis settings). It is better to cast a wide net in the screening process and subsequently rule out a substance use disorder on the basis of further assessment.

- **Index of suspicion:** If other methods are not feasible or appropriate, it is possible to use a simple checklist of behavioural, clinical and/or social indicators that together can raise the suspicion that the person has a substance use disorder. The following have been considered as common consequences of substance abuse in people with severe mental illness (Group 2). Examples are given in Appendix F.

- housing instability;
- difficulty budgeting funds;
- symptom relapses apparently unrelated to life stressors;
- treatment non-compliance;
- prostitution, other sexual acting out or sexual deviance;
- social isolation;
- violent behaviour or threats of violence;
- pervasive, repeated social difficulties;
- sudden unexplained mood shifts;
- employment difficulties;
- suicidal ideation or attempts;
- hygiene and health problems;
- cognitive impairments;
- legal problems.

On the basis of current practice wisdom the following should be added to this list:

- avoidance of disclosure (of likely concurrent disorders) for fear of being admitted to inpatient psychiatry;
- repeated self-harm in the absence of clear situationally relevant stressors;
- a cyclic history of substitute or replacement addictions.

■ **Asking a few questions:** Some research has shown that the response to a straightforward question about previous problems related to alcohol is highly correlated with the results of more detailed screening instruments.[176] The evidence on the value of this approach with people with concurrent disorders is mixed. The reluctance of people to be completely forthright in such self-diagnosis has been noted, and this may be particularly true upon first presentation to some mental health settings where no trusting relationship has yet been established between the consumer and the provider. Indeed, this was identified as a theme in the consumer focus groups. Drake et al.[156] warn of the difficulty people with severe mental illness may have in perceiving the relationships between substance use and psychosocial difficulties, and of the tendency to provide socially desirable answers. On the other hand, Barry et al.[171] compared consumer self-report and case manager ratings. They found the consumer ratings on some of the questions to be more predictive of a substance use disorder as determined by DSM-III-R criteria. The best predictor of a substance use problem by the consumer was their perception that others were concerned about their substance use (70% sensitivity: 88% specificity; 76% positive predictive value; and 84% negative predictive value). It is cautiously recommended that the three following questions be used as potential Level I screening questions

for substance use disorders in mental health settings when other approaches are considered inappropriate. A positive response to any one question should indicate the need for further investigation.

> Have you ever had any problems related to your use of alcohol or other drugs? (yes/no)
>
> Has a relative, friend, doctor or other health worker been concerned about your drinking or other drug use or suggested cutting down? (yes/no)
>
> Have you ever said to another person "No, I don't have [an alcohol or drug] problem, when around the same time, you questioned yourself and FELT, "Maybe I do have a problem?" (yes/no)

- **A brief screening instrument:** The third approach for Level I screening is based on the CAGE questionnaire,[177] and a modification known as CAGE-AID that incorporates both alcohol and other drugs.[172] They are considered Level I measures because of their brevity; being comprised of four items which can be routinely incorporated into a formal intake process or a discussion with a consumer seeking help. The CAGE has been validated with a sample of people with severe mental illness and has reasonably high sensitivity and specificity.[156,178] Wolford et al.,[179] however, compared several screening measures for substance use disorders for people with severe mental illness and, while the CAGE performed better than other approaches such as clinical variables, laboratory tests and collateral reports, it still yielded only modest sensitivity (60.9%) and specificity (69.5%).* The CAGE and CAGE-AID collect information related to *lifetime* rather than *current* substance use problems and some may also find this to be a limiting factor.

- **Case manager judgment:** In mental health settings which maintain contact with the consumer for several weeks, months or even years, case managers can ask themselves a few questions to screen for a substance use disorder.[171] In the study by Barry et al.[171] the best predictor of a consumer's meeting the DSM-III-R criteria for a substance use disorder was the one question: "Do you think the client has ever had a drinking or other drug problem? Would you say definitely, probably or not at all?"

  A relatively new brief screening tool for alcohol use disorders may hold promise for identifying people with concurrent disorders in mental health settings on the basis of further research. This instrument, known as RAPS4, has been developed as a brief screening tool for problematic drinking in emergency room settings.[181] It is comprised of four questions related to: Remorse, Amnesia, Performance and Starter (i.e., morning drinking). In emergency settings, a positive response to any

* On some criteria, the TWEAK screening instrument for alcohol problems[180] performed better than the CAGE. However, the CAGE has been better researched with people with concurrent disorders and has been adapted to relate to both alcohol and drug problems.

one item has been found to have high sensitivity (93%) and specificity (87%). The instrument has also performed well across gender and ethnic sub-groups. Although promising it needs to be validated in mental health settings.

b) Level II Screening Procedures

Within this level there are four alternative instruments.* They require somewhat more time and effort to incorporate into routine practice than the Level I alternatives (e.g., there are too many items to commit to memory with a simple mnemonic device such as with the four CAGE questions). However, all measures are still quite brief and easy to administer by interview or self-completion. Also, all the instruments noted below have been validated with people with mental health disorders and they are all in the public domain.

- **Dartmouth Assessment of Lifestyle Instrument (DALI):**[173] This instrument is the only screening instrument for substance use disorders that has been developed specifically for use with people with severe mental illness. It consists of 18 items that come from various existing screening tools. It was developed to be interviewer assisted. Eight items predict drug use disorders, nine predict alcohol use disorders. Two items overlap alcohol and drug use disorders. Results suggest it is reliable over time and across interviewers, and that it is more sensitive and specific than several measures including the MAST, TWEAK, CAGE or DAST.[173]

- **Michigan Alcoholism Screening Test (MAST):**[182] Teitelbaum and Carey[178] provide a comprehensive review of substance abuse assessment and screening measures applicable for people with severe mental illness. Their review includes many studies including the MAST,[182] and its shorter version (SMAST):[183] (see also[184]). The MAST was also one of several screening measures evaluated by Wolford et al.[179] While the instrument has been used extensively with people with severe mental illness, it is limited in comparison to the DALI since a separate screening tool will need to be used for drugs other than alcohol** (e.g., the Drug Abuse Screening Test (DAST).[185] It also gathers lifetime versus current information. A score of five or more indicates alcoholism; a score of four is suggestive and a score of less than four indicates non-problematic drinking. The SMAST is recommended over the full MAST due to its brevity (12 items). In the recent study by Wolford et al.[179] the much shorter self-report scales such as the CAGE or the TWEAK performed equally well as the MAST, if not better. However, all the brief self-report screening tools missed 25% to 40% of the people with alcohol disorders. While the results obtained in other studies with the MAST

* The project team is aware of the common use of the Substance Abuse Subtle Screening inventory (SASSI) as a screening and assessment tool used by many addictions programs in Canada. The limited validation data for the SASSI generally, and for application with people with concurrent disorders specifically, preclude our recommending it in the present context.

** As with the CAGE instrument a SMAST-AID (i.e. And Including Drugs) has been developed. However, it has not been tested with a sample of people with mental health disorders. Given the potential for confusion in the use of the term "drug use" the measure can not be recommended for use with this population at this time.

have been better than found in this recent study (e.g., 86.8% sensitivity noted by Drake et al.[156]) the MAST or the SMAST need to be complemented by other information such as collateral reports and behavioural observation.

- **Drug Abuse Screening Test (DAST):**[185] The DAST is similar to the MAST in that it is based on consumer's self-report and is not diagnostic; being based more on the consequences related to drug use than drug dependence *per se*. The items can be either interviewer or self-administered. In contrast to the MAST, the DAST items refer to the past 12-months rather than lifetime. Recent research on the DAST with psychiatric outpatient populations has confirmed the internal scale properties with this group and established acceptable test-retest reliability, criterion-related validity, sensitivity and specificity.[186,187] In these studies the briefest version of the DAST (10 items) also performed adequately as a screening instrument. The authors of these recent studies recommend a cut-off point of between 2-4 positive items on the DAST-10 as warranting further substance abuse assessment. However, they also point out that different cut-off points can be used depending on the clinician's interest in maximizing sensitivity or specificity. The cut-off point of 2 positive items was reported as achieving a good balance. Maisto et al.[187] also point out that the positive predictive value of the DAST-10 was low compared to that reported for the DALI by Rosenberg and colleagues.[173] This was attributed to the comparatively low base rate of current drug use disorders in their sample. This underscores the importance of considering the underlying prevalence of substance use disorders in the mental health setting when evaluating the appropriateness of a screening tool. For example, lower prevalence rates will lead to lower predictive value. A tool with low predictive value in a given setting can still be useful if a goal is to limit the number of individuals for whom more extensive, and more costly, assessments of substance use problems would be conducted. The appropriateness of this strategy versus the one of maximizing the number of people screened positive, including false positives, will need to be determined within individual settings and treatment systems.

- **The Alcohol Use Disorders Identification Test (AUDIT):**[188] The AUDIT is a well-known, 10-item self-report screening instrument designed to identify people for whom the use of alcohol puts them at risk for negative alcohol-related consequences, or who are experiencing such consequences. Its performance has recently been evaluated with people with severe mental illness.[187] The time reference for the AUDIT items is the past year, although a few items have no specific time referent. It can be interviewer or self-administered. Maisto and colleagues[187] confirmed the value of the AUDIT in identifying people with alcohol use disorder, or expressing symptoms of that disorder, in the past year. Estimates of sensitivity ranged from .95 to .85 depending on the cut-point used. Specificity ranged from .65 to .77. Consistent with the use of the AUDIT in other settings[189] a cut-point of 7 or 8 struck a good balance between sensitivity and specificity when using the diagnostic criteria of DSM-IV as the standard for comparison.

Level II Screening Measures for Substance Abuse

All of the above screening tools are based primarily on consequences related to alcohol or drug use and the item responses do not map onto DSM-IV criteria. One brief tool that is available does provide this mapping and it also covers both alcohol and other drugs with the same set of items. The measure, however, has not yet been extensively evaluated, in particular with people with concurrent disorders. This set of 16 items (Substance Abuse and Dependence Scale: SADS) is a scale within the Global Appraisal of Individual Needs (GAIN:[190]). The SADS provides a useful screen for dependence (tolerance, withdrawal, inability to control use) and abuse (consequences of use) based on DSM-IV criteria. It also produces a symptom count score which can be used to monitor change over time.

In addition, the Psychiatric Screener described in the next section for screening for mental health disorders, also provides a list of items that map onto the DSM-IV criteria for substance abuse and dependence.

c) Summary:

There are many alternatives for screening for substance abuse among people presenting to mental health services. The specific strategy selected may depend on the time and resources available. Asking a few simple questions or using a basic index of suspicion will be better than not giving any attention at all to substance abuse issues. It is also recommended that the results of brief screening tools (e.g., CAGE-AID) be complemented by corroborating information from different sources. Case manager ratings may be particularly helpful in those services with ongoing contact with the consumer. The DALI is the preferred tool for screening for substance abuse among people with severe mental illness.

Best Practice Recommendation

- It is recommended that all people seeking help from mental health treatment services be screened for co-occurring substance use disorders. This advice is organized around Level 1 and Level II approaches that can be tailored to the type of setting and the time and resources available.
- Level I approaches include:
  - using an index of suspicion
  - asking a few questions
  - using a brief screening instrument
  - using case manager judgment
- Level II approaches include the:
  - Dartmouth Assessment of Lifestyle Instrument (DALI)
  - Short Michigan Alcoholism Screening Test (SMAST)
  - Drug Abuse Screening Test (DAST)
  - Alcohol Use Disorders Identification Test (AUDIT)

3.1.3 Screening for Mental Health Disorders

a) Level I Screening Procedures

Within this level, there are two alternatives that require very little time and effort on the part of clinicians/therapists during the initial contact with the consumer, or within the context of an official intake process. As with the Level I procedures for screening for substance abuse in mental health settings, reliability, validity, sensitivity and specificity values are not available for these procedures. However, suggestions are based on current practice wisdom and may still have value as part of a clinical decision-making process, especially in settings where more psychometrically sophisticated approaches may not be appropriate during the early period of contact or intake to the program (e.g., withdrawal management settings).

- **Index of suspicion:** If other methods are not feasible or appropriate, it is possible to use a simple checklist of behavioral, clinical and/or social indicators that together can raise the suspicion that the person has a mental health disorder and for whom a subsequent mental health assessment is needed. Consistent with the TIP concurrent disorders protocol,[24] the following ABC checklist for a mental health status exam is recommended.

  - **Appearance, alertness, affect, and anxiety:**

Appearance:	General appearance, hygiene, and dress.
Alertness:	What is the level of consciousness?
Affect:	Elation or depression: gestures, facial expression, and speech.
Anxiety:	Is the individual nervous, phobic, or panicky?

  - **Behavior:**

Movements:	Rate (hyperactive, hypoactive, abrupt, or constant?).
Organization:	Coherent and goal-oriented?
Purpose:	Bizarre, stereotypical, dangerous, or impulsive?
Speech:	Rate, organization, coherence, and content.

  - **Cognition:**

Orientation:	Person, place, time, and condition.
Calculation:	Memory and simple tasks.
Reasoning:	Insight, judgment, problem solving.
Coherence:	Incoherent ideas, delusions, and hallucinations?

- **Asking a few questions:** It is cautiously recommended that the three following questions be asked if other approaches are considered inappropriate in a particular setting:

  Have you ever been given a mental health diagnosis by a qualified mental health professional? (yes/no)

  Have you ever been hospitalized for a mental health-related illness? (yes/no)

  Have you ever harmed yourself or thought about harming yourself but not as direct result of alcohol/drug use? (yes/no)

  If answered forthrightly by the consumer these three questions will still no doubt miss many people with concurrent disorders, especially those with less severe mental illness. However, the questions are better than not asking any questions at all, in those settings where the application of a longer psychometrically validated screening tool may not be appropriate.

b) Level II Screening Procedures

There is a real need for a brief, validated screening instrument for mental health disorders that would be suitable for use in a wide cross-section of substance abuse treatment services. As noted earlier there is also an important distinction to be made between screening instruments that are based on measures/indicators of general psychological distress compared to those with questions that are intended to map directly onto DSM diagnostic criteria. Each approach has advantages and disadvantages. It is also important to keep in mind that the goal of the screening is to identify people who should receive a full mental health assessment at which time diagnosis would be confirmed.

One of the difficulties encountered in identifying potential screening instruments for mental health problems is that the best researched instruments tend not to be in the public domain and therefore require a fee for their use. A good example is the Brief Symptom Inventory which is a 53-item self-report short form of the SCL-90-R.[191] It has been used extensively in substance abuse treatment research as a reliable and valid general screen for psychopathology. Another example is the General Health Questionnaire[192] and its shorter versions (GHQ-28);[193] which has also been widely used in the substance abuse field. There are also brief screening tools specific to some mental health disorders, for example the Centre for Epidemiologic Studies Depression Scale (CES-D):[194] and these are cited in the later sections on specific sub-groups of people with concurrent disorders.

- **Psychiatric Sub-scale of the Addiction Severity Index (ASI):**[195] The best practice recommendation from among current alternatives in the public domain is the psychiatric sub-scale of the Addiction Severity Index. The scale is comprised of 11 items that tap into previous treatment for psychological or emotional problems; disability pension; use of medication; and experiencing various symptoms (e.g.,

depression, serious anxiety, hallucinations, cognition difficulties, suicide ideation) but which are not a direct result of drug/alcohol use. In addition to these 11 items, both the client and the therapist provide various ratings of problem severity. Through communication with the developers of the ASI, the following four questions can supplement the ASI Psychiatric Sub-scale in its published form.

Have you had a significant period of time (that was not a direct result of alcohol/drug use) in which you have (0=no; 1=yes):

1. Experienced significant problems with controlling your eating (e.g. binging, purging, unable to eat)
   Past 30 days? _____ Lifetime? _____

2. Experienced significant problems with your sleep? (e.g. falling/staying asleep, sleeping too much)
   Past 30 days? _____Lifetime? _____

3. Experienced panic attacks or extreme anxiety out of the blue?
   Past 30 days? _____Lifetime? _____

4. Experienced a trauma that comes back in unwanted flashbacks?
   Past 30 days? _____Lifetime? _____

Level II Screening Measures for Mental Health

There are three promising screening tools under development:*

- A mental health screening tool known as the Psychiatric Screener[197] is being developed by the Centre for Addiction and Mental Health** in Toronto. The preliminary reliability and validity testing of the Psychiatric Screener is currently under investigation and the results to date have been very encouraging.

  The Psychiatric Screener assesses 12 dimensions of psychopathology across Axis I of the DSM. Each dimension results in a 0 to 1 scoring system, and is not continuous in terms of degree of severity. Individuals receive a gross categorization of either having the disorder or not having the disorder (to be followed by a full mental health assessment). In addition, for those who have a positive score for having the disorder, the screening instrument scores the person in terms of the disorder being current or in the past (i.e., occurred sometime before the month in which testing took place).

  The Psychiatric Screener also assesses symptoms associated with dependence or abuse of each of several classes of psychoactive substances; the items reflecting the criteria in DSM-IV.

* Another measure known as PRIME-MD screens for psychiatric disorders but has been developed spcecifically for physicians.[196] While it may have some potential value in treatment settings with a staff physician it would require some modification to be more widely applicable. Further the tool has not been tested and validated with people with concurrent disorders.

** The contact person for information about this screening tool is Mr. Wayne Skinner (1-416-525-8501, Ext. 6387)

- In addition to the Psychiatric Screener which is diagnosis-based, another important option for screening for mental health problems based on psychological distress/functioning is on the horizon. In the GAIN assessment package mentioned earlier in the context of screening for substance use disorders,[190] there is a 21-item General Mental Distress Index (GMDI) that screens for depression, anxiety and suicide ideation. It also has additional screening items for traumatic distress and external distress (e.g. ADHD, conduct disorder).[198] The measure, however, has not yet been extensively validated, in particular with people with concurrent disorders.

- Another brief mental health screening tool based on psychological distress/functioning is also in the early stages of development by Ron Kessler.[199]

c) Summary:

There are alternatives available for screening for mental health disorders among people presenting to substance abuse services. The specific strategy selected may depend on the time and resources available. Asking a few questions or using a checklist for mental health status will be better than not giving any attention at all to mental health issues. The psychiatric subscale of the Addiction Severity Index is recommended and should be supplemented by a small number of additional items. Promising new screening tools for mental health disorders are currently under development.

Best Practice Recommendation

- ➤ It is recommended that all people seeking help from substance abuse treatment services be screened for co-occurring mental health disorders. The advice is organized around Level I and Level II approaches that are tailored to the type of setting and the time and resources available.
- ➤ Level I includes:
  - using an index of suspicion
  - asking a few questions
- ➤ Level II includes:
  - psychiatric sub-scale of the Addiction Severity Index (ASI) device

3.2 Best Practice in the Assessment of People with Concurrent Disorders

3.2.1 General Issues in Assessment

The importance of conducting a comprehensive assessment of the potential substance use or mental health problem identified in the screening process has been underscored in recent years by several experts in the field of concurrent disorders.[40,41,52,170,178,200] All agree on the critical need for a comprehensive assessment for consumers of mental health services thought to have a substance use disorder, and vise versa for those attending substance abuse services. Assessment is seen as intimately linked to treatment planning and the delivery of quality services.[52,178] Assessment data also serve another important function as baseline information for the determination of outcome.[41] However, the additional and often complex task at hand, is to investigate the inter-relationship of the mental health disorder(s) and the substance use disorder(s) in terms of their interaction and etiology. As discussed in an earlier section there are many ways in which alcohol and other drug use (AOD) can interact with severe mental health problems.[24,41,156,178] Mueser et al.[45] provide the most inclusive discussion to date of etiological theories.

There is cause for concern about the reliability of information from substance abuse or mental health assessments conducted with people with concurrent disorders (see Del Boca & Noll,[201] for a recent review). There is evidence of lower reliability of self-reported past or current psychiatric disorders among drug abusing versus non-drug-abusing individuals.[202,203] There is also lower reliability of self-reported alcohol and drug use and consequences among people with severe mental illness, this being exacerbated by fluctuations in acute symptomatology, cognitive impairment and mental status.[178]

Suggestions from Carey & colleagues[178,213,218] for improving the accuracy and reliability of self-reported substance use and related problems by people with concurrent disorders include:

- use multiple assessment methods;
- conduct multiple assessments over time (e.g. after 2 to 3 weeks of decrease in consumption);
- be sensitive to consumers' concerns;
- conduct the assessment when he/she is sober, drug-free and reasonably stable emotionally;
- provide assurance of confidentiality;
- establish a good rapport before asking for a lot of details;
- use simple direct questions with clearly defined time frames;
- do not aim for levels of specificity that exceed assessment goals;

- frame questions to normalize different substance use patterns (e.g., many people have experimented with drugs? Have you ever had any experiences with……?); and

- verify the information as much as possible with other sources to converge on a consistent set of conclusions.

One of the strongest recommendations made by experts in the field is for assessment to be conducted over more than one interview and to include multiple sources of information. Assessment should be seen as an ongoing process, that extends over a period of time, including a period of abstinence or significant reduction in use.[41] This integrative, longitudinal approach is described, for example, by Drake et al.[156] and Kranzler et al.[204] Kranzler et al.[204] have formalized this integrative approach into the Longitudinal Expert All Data Procedure (LEAD). This integrates all information and observations about the consumer that is available from multiple clinicians and support workers, and over repeated assessments. Carey and Correia[41] note that this approach was found to be less effective for concurrent mood and anxiety disorders compared to other comorbidities. The longitudinal approach, however, is critical to sorting out the "chicken and egg" problem. As noted by Carey and Correia,[41] if psychiatric symptoms continue during periods of abstinence this helps establish the DSM-IV criterion of "not due to substance use". Alternatively, the resolution of some or all of the psychiatric symptoms during periods of little or no use is consistent with a substance-induced disorder.

3.2.2 Alternative Approaches and Measures

A primary goal of a comprehensive assessment of substance use or severe mental illness is to confirm diagnoses.[41] For substance use disorders this involves making the important distinction between substance abuse or dependence using the criteria of the DSM-IV. This can be done with the substance abuse module of a full diagnostic interview such as the Structured Clinical Interview for Axis I DSM-IV Disorders (SCID-IV).[205] For mental health evaluation, a full structured or semi-structured mental health interview is required by a professionally qualified mental health
professional.[20]

The Alcohol Use Scale (AUS) and the Drug Use Scale (DUS)[206] are two five point clinician-rating scales that have been developed to classify people with severe mental illness into categories that correspond to the level of severity of substance use. The results also map onto DSM-IV criteria. The clinician makes the ratings using all available information that has been accumulated over a six-month period. Results show the scales can be completed reliably and that the results correspond well with other methods of screening and assessment.

Dennis[207] provides a recent overview of measures to consider for a comprehensive substance abuse assessment. For example, it is recommended that a substance abuse assessment include:

- a detailed behavioural component that examines the frequency and pattern of alcohol and drug use;[208-210] and

- factors predictive of relapse such as the confidence the person has that they can avoid drinking or drug use in high risk situations.[211,212]

Few assessment measures, however, have been assessed for their reliability and validity with people with concurrent mental health disorders. Carey[170] has assessed the reliability and validity of the Time-Line Follow-Back interview among psychiatric outpatients and concluded that it can appropriately be used with this population. Teitelbaum and Carey[178] and others[35,44] note that the focus on the actual amount and pattern of alcohol and drug use is critical since moderate use of these substances which would not normally be considered "abuse" can still influence the course of severe mental illness and treatment outcome. Indeed, Drake's research with people with schizophrenia suggests that full-blown alcohol dependence is the exception rather than the rule.

The Addiction Severity Index (ASI)[195] is one of the most commonly used standardized assessment instruments in the field of substance use disorders and there is an increasing amount of research on its applicability for people with co-occurring mental health disorders. The general conclusion drawn from most individual studies,[213] and research summaries,[213] is that many of the sub-scales do not perform as well as to be expected with people who have severe mental illness. In addition to poorer reliability than found with other populations, the ASI has been found to be relatively insensitive to the consequences of lower amounts of substance use; a particular difficulty for people with severe mental illness.[44]

The ASI has a high acceptance in the field and has been successfully employed in treatment planning, research and program development in addiction treatment centres that have special programs for concurrent disorders, or admit clients with concurrent disorders.[214] There is also an adolescent version of the ASI that is available in both French and English.[215] After much discussion of the available research on the ASI, it is recommended that the ASI be used cautiously in the assessment of people with concurrent disorders, and particularly with people with severe mental illness. For this particular sub-group (Group 2), the ASI should be supplemented with other information, such as the Time-Line Follow-Back interview,[216] clinician ratings,[206] or other methods.

3.2.3 Assessing Stage of Change and Treatment Motivation

A third consistent recommendation for the assessment of people with concurrent disorders is to evaluate their motivation for change, including the stage of change[61,217,218] and/or the person's stage in the treatment process.[62,218] The "Stages of Change" model is well-known in the substance abuse field. There are five stages in the change/recovery process:

- *pre-contemplation* is the stage at which there is no intention to change behavior in the foreseeable future;

- *contemplation* is the stage in which people are aware that a problem exists and are seriously thinking about overcoming it but have not yet made the commitment to take action;

- *preparation* combines the intention to take action within the next month with lack of success in taking action during the past year;

- *action* is the stage in which individuals modify their behavior, experiences, or environment in order to overcome their problems;

- in *maintenance*, people work to prevent relapse and consolidate the gains attained during the action phase.

The measure of the "stage in treatment motivation" is conceptually related to the stage of change model but developed specifically for people with concurrent disorders (Group 2). The measure is known as the Substance Abuse Treatment Scale (SATS) and complements clinician ratings of alcohol and drug use. The scale places the individual along stages of engagement, persuasion, active treatment and relapse prevention.

To these recommendations of assessing "stage of change" and/or "stage of treatment motivation", is added the importance of assessing both these intrinsic motivational factors, and the more extrinsic pressures to seek help (e.g., coercion from the legal system).[219,220] Tailoring the treatment plan for people with concurrent disorders based on client stage and motivation, is one of the key principles of an integrated treatment plan as defined by Mueser,[45] and Drake and colleagues,[64] and is a good example of how the assessment information must be linked to the treatment plan.

Further, there may be many shifts and regression in motivation for change based on:

- the dynamics and expression of particular mental disorders (e.g., people in a manic phase may have high confidence and focused energy);

- the presence of substance abuse relapse risk factors (e.g., increased party activity while in a manic phase); and

- the interaction between the substance use risks and the mental health risks (e.g., overconfidence in manic phase in the ability to self-control one additional drink).

The issue is that evaluation of motivation may be quite unstable.

3.2.4 Assessing Psychosocial Functioning

Finally, both mental health and substance use assessment must look at the broader psychosocial functioning of the person including such basic needs as housing, access to food, social supports, work, education and training.[64] This would also include an assessment of high-risk behaviour for HIV and Hepatitis C (e.g., needle sharing), violence and victimization. The most comprehensive protocol for the assessment and classification of social functioning is the Person-in-Environment System (PIE).[221,222] This assessment tool has been developed by the social work profession and is consistent with the broad bio-psychosocial perspective of addictions and mental health. It complements the diagnostic-based assessment process underlying DSM-IV and its predecessors* by focusing

* While DSM accommodates psychosocial stressors and functioning on separate Axes (IV and V) the assessment is limited to two summary ratings of severity and contributes little information to an individual's treatment and support plan.

separately on factors related to social functioning (e.g., family, friendships, community) and environmental problems (e.g., access to food, housing, employment) and subsequently incorporating mental and physical health diagnosis. Clinician ratings of severity, duration and coping are included in the system.

While there are few published accounts of the application of the PIE assessment process for people with concurrent disorders[223] the approach has a high degree of face validity given the important role that psychosocial functioning plays in determining the course and outcomes of concurrent disorders (see subsections below). The length of the PIE assessment process (on average 90 minutes) may limit its application in some settings. However, a computerized version is pending and this should considerably reduce time for administration and scoring. The short version of PIE [mini-PIE] may be scored by the mental health/substance abuse counselor in less than 15 minutes. There is reliability and validity data for the use of PIE in various human services contexts.

Another alternative for assessment of functioning is the Global Assessment of Functioning Scale (GAF).[224] The GAF asks a clinician familiar with an individual to rate that person's overall level of psychological, social and occupational functioning on a scale ranging from 1 to 100. Clear and concise anchors are provided for each 10-point range on the scale. The GAF can be completed with reference to varying time periods (e.g., currently, highest level of past year) and it constitutes the operationalization of Axis V of the DSM-IV mutiaxial assessment.[46] It is a slightly modified form of the Global Assessment Scale and it can be used with a high level of reliability.[224]

Best Practice Recommendation

On the basis of a positive screen for either substance use or mental health disorders, a comprehensive assessment is recommended to (a) establish diagnoses (b) assess the level of psychosocial functioning and other disorder- specific factors; and (c) develop a treatment and support plan that seeks to sort out the interaction between the mental health and substance use difficulties for the individual, and work toward a positive outcome for both sets of problems as well as any related problems.

3.3 Best Practice for the Treatment/Support of People with Concurrent Disorders

This section outlines the best practice guidelines for treatment/support within four sub-groupings of people with concurrent disorders:

- co-occurring substance abuse and mood and anxiety disorders;
- co-occurring substance abuse and severe and persistent mental illness;

- co-occurring substance abuse and personality disorders;
- co-occurring substance abuse and eating disorders.

Before dealing with each sub-group separately, some of the common elements of an effective approach to treatment and support are highlighted:

- both substance abuse and mental health problems can be chronic, recurring health problems which usually require some immediate interventions as well as ongoing monitoring and support. Mental health symptoms may have an independent trajectory that may nevertheless be exacerbated by substance use. This is sometimes akin to 'kindling' effect whereby the use of substances exacerbate mental health problems, which in turn exacerbate housing difficulties, problems with the law, etc. Alternatively, the mental health symptoms may be a clear consequence of chronic and heavy use of psychoactive substances (e.g., chronic depression). One purpose of ongoing monitoring and support is to help sort out the interaction between the substance use/abuse and the mental health problems and symptoms;
- consistent with our earlier definitions of program- and system-level integration some specific interventions for some sub-groups may best be delivered sequentially, while others are best delivered at the same time. Integration is about communication, consistency, and coordination of all the various clinicians and support workers and not whether one set of problems (mental health or substance abuse) is addressed before the other;
- treatment and ongoing support for all sub-groups of people with concurrent disorders should also include attention to the person's basic needs for housing, access to food, social support and other aspects of psychosocial circumstance and social functioning;[64,225]
- the research evidence suggests there is considerable value in tailoring the intervention for people with concurrent disorders to the motivational level or 'stage' that the consumer is at, at that particular point in time.[62,218] Thus, for all sub-groups there may be value to assessing motivational stage and utilizing motivational interviewing techniques,[226] recognizing that with some disorders clinicians may expect expressed or felt motivation to be unstable;
- there is little evidence in support of residential treatment over intensive outpatient care;[35]
- self-help groups such as AA and other 12 Step programs[226,227,228] and consumer/survivor initiatives in the mental health field[74] play a critical role in community mental health and addiction systems.

3.3.1 Co-Occurring Substance Abuse and Mood and Anxiety Disorders

a) Prevalence and Etiological Issues

Several reviews in recent years have demonstrated marked comorbidity between substance use and mood and anxiety disorders.[54,229-231] Elevated associations between unipolar depression have also been consistently observed [231] These reviews summarize

a substantial body of evidence pointing to the high prevalence of mood and anxiety disorders among people in treatment for substance use disorders as well as elevated rates of substance abuse among individuals in mental health settings.[229,232-235]

Significant rates of comorbidity between substance use disorders and mood and anxiety problems have also been found in large multi-site community studies [75] This suggests that the positive association between these problems in clinical groups is not an artifact of self-selection into treatment. For example, the ECA study[75] found anxiety disorders to represent the most prevalent non-substance use diagnoses (19%) among people with alcohol use disorders. Those with any anxiety disorder had a 50% increase in the odds of being diagnosed with an alcohol use disorder. A similarly elevated risk was found in The National Comorbidity Survey.[76]

These patterns can also be found in the community studies of mood disorder and substance abuse where lifetime prevalence of major depression among substance users was much higher (24.3%) than the rate in the general population (5.8%).[75] Furthermore, rates of substance abuse disorders among those with depression (27.2%) and bipolar disorder (60.7%) were also quite high.

The strength of the association between specific anxiety-related diagnoses and substance use disorders varies considerably. Phobic anxiety disorders and, in particular, panic disorder with agoraphobia and social phobia, appear to be most highly associated with alcohol use disorders. In addition, the overlap between post-traumatic stress syndrome (PTSD)* and substance use disorders is extremely high with estimates of co-occurrence ranging from 12%-59%.[237] The prevalence of post- traumatic stress syndrome amongst people with substance use disorders is higher for women than men and estimated to range from 30-59%.[236]

The growing awareness of substance-induced mood and anxiety disorders[46] suggests that for many people the effective treatment of their substance abuse would alleviate the symptoms of the mood and anxiety disorders.

b) Implications for Screening and Assessment

Screening for an alcohol or drug problem among people with anxiety disorders can be accomplished with one or more of the screening tools identified in Section 3.1.2 (e.g., the Alcohol Use Disorder Identification Test;[188] Drug Abuse Screening Test.)[185] Levels of severity can be rapidly determined using the Alcohol Dependence Scale[237] and a more detailed picture of alcohol or drug use can be obtained with the Timeline Follow-back method.[208,216] The Beck Anxiety Inventory,[238] or the Brief Symptom Checklist[191]are useful screening instruments for mood and anxiety disorders. Specialized instruments are available to assess trauma symptoms and dissociation. One such instrument is the Trauma Symptom Checklist-33 that measures long term sequelae of sexual abuse.[239] Psychiatric diagnosis of the anxiety or alcohol use

* Post-traumatic stress disorder is an anxiety disorder which involves a cluster of symptoms characterized by a strong tendency to avoid emotion. Post-traumatic stress syndrome may occur as a consequence of experiencing a severe and stressful life event. Simple post-traumatic stress syndrome may result following a single traumatic event whereas complex post-traumatic stress syndrome arises from repeated incidents of trauma and is associated with a broader range of symptoms.

disorder should be carried out by a psychiatrist, registered psychologist (in some jurisdictions also registered clinical social workers) using a structured and validated interview such as the SCID for the DSM-IV.[205]

A greater challenge is encountered in assessing the relationship between an alcohol and a mood and anxiety disorder. Such an assessment should include several sources of data including:

- family history of both disorders;
- natural history of both disorders (i.e., onset, course, fluctuations, remissions);
- the effect of improvements of one disorder on the course of the other;
- childhood variables (e.g., trauma, neglect, abuse); and
- patterns and severity of alcohol consumption (e.g., episodic vs. daily).

Assessment does not occur only at intake; re-assessment over the course of care and support is critical to sorting out whether the mood and anxiety problems are substance-induced. In the case of mood and substance abuse, Brown et al.[235] and Schuckit & Monteiro[96] have suggested waiting several weeks prior to making a definitive diagnosis.

c) Clinical Issues and Treatment Implications

One of the more salient issues facing treatment of individuals with anxiety or mood disorders is the difficulty in accurately diagnosing the nature of the relationship between these disorders and concurrent substance abuse. The observation that psychoactive substances can produce signs and symptoms strongly resembling anxiety or mood disorders creates the dilemma of not knowing whether such disorders should be treated directly or if they would resolve following reduction in substance use. Also, withdrawal from many substances may also produce signs and symptoms that resemble mood or anxiety disorders which can hamper treatment. This diagnostic confusion can lead to inappropriate or delayed treatment.

Additional issues relevant to concurrent dependence on substances and mood/anxiety disorders include the increased danger of suicide, especially in the case of mood disorders. There may also be increased ambivalence evident in the motivation to address the substance problems since in many cases the abused substance may be perceived as temporarily improving the distressing mental health symptoms. It is thus very important to regularly monitor and strengthen motivational status. Furthermore, concurrent mood/anxiety disorders and substance use appear to be associated with poorer response to both psychological and pharmacological treatments;[240-241] poorer prognosis (i.e., higher relapse rates, residual dysfunction), and higher rates of medication use;[242] and greater probability of requiring additional treatment.[235]

The co-occurrence of post-traumatic stress syndrome and substance abuse is associated with poorer treatment outcomes.[243-246] People with substance use disorders and post-traumatic stress syndrome are:

- more likely to abuse harsher classes of psychoactive substances, such as heroin or cocaine;
- have high rates of substance abuse; and
- are more vulnerable to re-traumatization.[247]

Studies comparing individuals with post-traumatic stress syndrome and substance abuse disorders compared to those with substance use disorders alone have found that the former have a more impaired clinical profile. Problems include higher rates of unemployment, greater social and family dysfunction, poorer medical and psychological status, including more co-morbid Axis I disorders.[243,246]

d) Review of the Evidence

This section summarizes the evidence relevant to two questions:

- Is there evidence for or against a particular sequencing of interventions?
- Is there evidence that points to one or more specific treatment approaches or interventions as being particularly effective?

i) **Sequencing:** With respect to the first question, there are several compelling reasons why a sequenced approach, specifically dealing with the substance related problems first, may be more appropriate than a concurrent approach for the majority of consumers with co-occurring mood and anxiety and substance use disorders. This sequenced approach would still be undertaken within an integrated program and/or system whereby the various clinicians and support workers would have agreed to work together on this general treatment plan. Some of the reasons for the sequenced approach include:

- the mood and anxiety syndromes that are observed in people who are alcohol dependent are often organic consequences of chronic alcohol use and can improve significantly with a reduction in use; [248]
- psychoactive substances negatively impact on many areas of the individuals' life such as work, health, interpersonal relationships, finances and cognitive functioning. Reducing substance use will lessen the strain on these areas. For example, most of the incidents of suicide in a study by Murphy[249] were committed under acute intoxication.[159,250] As long as psychoactive substances are still being used, the person may experience many of the consequences that are generally associated with mood/anxiety disorders.

The suggestion to start with the substance abuse for most people with concurrent mood and anxiety and substance use disorders is strongly supported by a recent study by Verheul et al.[145] Their results show that people who were recovering from an alcohol use disorder were 16.7 times more likely to recover from their mood/anxiety disorder than people who did not recover from their alcohol use disorder. Those recovering from an opioid use disorder, were 4.3 times more likely to recover from their mood/anxiety disorder than those who did not. This increased probability was not observed among those recovering from cocaine use disorder in comparison to those who did not.

While a general rule of thumb may be to begin with the substance use problem this is not likely to be successful in all cases, and an ongoing assessment will be required to adjust the treatment plan if the mood and anxiety symptoms are not alleviated through a reduction in substance use. Symptoms of anxiety and depression may not only interfere with optimum outcomes from substance abuse treatment, but are frequently reported as triggers for relapse.[251-256] If the client succeeds at significantly reducing their alcohol and/or drug consumption, and continues to experience anxiety symptoms, then there is a high likelihood that they also suffer from an independent mood or anxiety disorder and treatment should proceed to deal specifically with that disorder. Thus, comprehensive and repeated assessment is critical when a sequenced approach is followed. For other people, mood and anxiety disorders can precede and be functionally related to the substance use problem.[54] Such situations may require explicit treatment of the mood and anxiety disorder from the outset, keeping in mind that the symptoms which may be self-medicated by the substances are still exacerbated by substance misuse.

There is one major exception to the general rule of thumb to start first with the substance use disorder for concurrent substance use and anxiety related disorders. This exception concerns co-occurring post-traumatic stress syndrome, whereby prevailing clinical wisdom would recommend concurrent treatment interventions within a fully integrated model.[159] For example, Najavits et al.[257] argue that specific treatments known to be effective for post-traumatic stress syndrome may not be helpful on their own for individuals with concurrent substance abuse and post-traumatic stress syndrome . An example would be exposure procedures that can increase emotional intensity, which in turn may trigger a relapse to substance use. Similarly, 12- step programs often include a focus on the present rather than the past (e.g., public disclosure and surrendering to a higher power) and can be experienced as re-traumatizing to the client with post-traumatic stress syndrome.[257] A concurrent integrated approach is also favored by clients.[258] Although there is limited empirical evidence on concurrent versus sequenced approaches to substance use and mood and anxiety disorders, the evidence and the reasoning is strong enough to suggest such an approach be followed for post-traumatic stress syndrome.

ii) **Interventions:** Whether the interventions are delivered in sequence or concurrently, what are the treatment approaches and interventions for concurrent mood and anxiety disorders and substance abuse that are the most highly supported by research? Recent reviews, summarizing a large number of well-controlled treatment studies have found overwhelming evidence for the efficacy of cognitive-behavioural therapy (CBT) for alcohol use disorders.[12,259] This includes several key components such as:

- ensuring client choice;
- treating the context of substance misuse;
- tailoring to the person's stage and motivation for change;
- practical problem-solving;
- emphasis on action;
- reliance on social supports;
- resolving ambivalence about change;
- identifying and managing cues to misuse.

Concurrent anxiety disorders: CBT is by far the most effective treatment for anxiety disorders,[260-262] and is consistent with the CBT approaches found to be effective for alcohol use disorders. An individual whose substance use is a means of controlling their anxiety symptoms will require a strategic and effective intervention for these symptoms during the window of opportunity afforded by a reduction in drinking or drug use. Otherwise the risk of relapse and dropout may be high.[253] Thus, the clinician should be able to effectively administer CBT treatments for the phobic disorders which are characterized primarily by behavioral avoidance (i.e., social phobia, agoraphobia, specific phobia), and the anxiety states which are characterized primarily by somatic activation and cognitive symptoms (e.g., panic disorder, generalized anxiety disorder, acute stress disorder). For each of these disorders there are well-established and empirically supported treatment protocols which guide the clinician in case conceptualization and treatment, including pharmacological approaches.* [260] Psychological treatment typically stresses:

- problem definition;
- functional analysis of the symptoms;
- identification of cognitive distortions and schemas;

* Benzodiazepines for anxiety disorders can be contraindicated with substance dependent individuals because these drugs are especially susceptible to being abused and have a synergistic interaction with alcohol.

- exposure to the phobic stimulus;
- arousal management; and
- other strategies.

CBT for alcohol dependence may need to take into consideration the impact of the concurrent anxiety by negotiating treatment goals; identifying the types of high-risk situations; the role of cognitive distortions; the kinds of environmental and social support and resources available; the rate of change, etc.

Concurrent mood disorders: Similarly, with respect to *mood* disorders an analysis of the depressive symptoms will identify the specific cognitions, behavioral pattern and coping skills that may be maintaining the depressed mood and associated symptoms. Well-described and detailed protocols exist outlining the specific techniques that can modify depressed mood and behavior, including pharmacological treatment.[263,264] For concurrent depression and alcohol use disorders the evidence also points to CBT as an effective approach. For example, Brown et al.[265,269] treated depression and alcoholism with eight sessions of either CBT or relaxation therapy and found superior effects for the CBT treatment on mood and anxiety symptoms and percentage days abstinent. Results were even more pronounced at the 6-month follow-up.

Despite addressing the alcohol and mood/anxiety symptoms, some individuals may require ongoing relapse prevention, case management and booster sessions. These would include the clients who have difficulty coping with chronic stress or negative life events; occasionally succumb to drinking cues; display less than effective interpersonal behavior. For this population, treatment may often be an ongoing process and require the use of a wide variety of modalities and services (e.g., family therapy, vocational counseling, stress management, lifestyle re-education), in addition to direct treatment of their alcohol abuse and mood/anxiety symptoms. Individuals with concurrent personality disorders often fall into this category.

For individuals who demonstrate serious impairment in several areas, such as work or school, family relations, judgment, thinking or mood, a close and ongoing monitoring of functioning is required as the recovery from substance use disorder may not eliminate the serious impairment in functioning. These individuals remain particularly vulnerable to problematic life events due to their poor coping skills. Suggesting and enabling them to come for additional support when they experience significant stress will probably be a useful preventive strategy. With those individuals who have significant impairments in functioning, considerable vigilance should be exercised for those whose substance abuse is not improving. For them, the various risks associated with mood/anxiety disorders remain. For example, as noted earlier, the risk of suicide under acute intoxication is high.[249,250] There is also an increased risk of domestic violence,[115] child neglect,[113] child abuse, etc.[114]

Concurrent post-traumatic stress syndrome: The limited scientific literature on the treatment of co-occurring post-traumatic stress syndrome and substance abuse does not allow for an empirically validated recommendation on the best standard of care beyond the recommendation noted earlier for a concurrent integrated model. Until recently there were no programs designed to treat post-traumatic stress syndrome and substance abuse. Recently, there have been developments in the area of integrated approaches. These researchers agree on the need for an initial phase that helps the person stabilize and improve functioning.[266] It is also recommended that treatment help the individual learn about both disorders, including their inter-relationship and symptoms.

Najavits et al.[246] and Najavits[267] were the first to develop and evaluate a cognitive-behavioral approach within a concurrent, integrated model. Participation in their program, known as "Seeking Safety", was associated with high retention rates, and reduced substance use as well as post-traumatic stress syndrome symptoms.[236] This treatment program is probably the most widely studied for this population and is currently being evaluated in eight different subgroups for concurrent post-traumatic stress syndrome and substance use disorder. The "Seeking Safety" treatment is designed for clients in the first stage of recovery in which the goal is to reduce substance use and post-traumatic stress syndrome symptomatology. The treatment seeks to:

- increase clients' knowledge of both disorders;
- enhance life structure and increase coping skills in the management of painful affect; and
- enhance self-care and interpersonal relationships.

Evans and Sullivan[159] offer another dynamic approach to addressing post-traumatic stress syndrome patterns and substance abuse.

Drug Therapies: There is a small literature on pharmacologic treatment tailored specifically to people with concurrent mood/anxiety and substance use disorders. While some alternatives are beginning to show promise there is insufficient evidence at present for a best practice recommendation. Fluoxetine has been shown to possess relaxing effects in people with substance use disorders that were also diagnosed with social phobia and panic.[268,269] Tollefson, Montague-Clouse & Tollefson[270] found that buspirone reduced alcohol use among people with concurrent anxiety disorders. Kranzler et al.[204] found similar results. The use of benzodiazepines is generally cautioned against due to the risk of cross-addiction[20] unless the individual has been abstinent for a stable period. While traditional tricyclic anti-depressants effectively treat the depression, they do not impact on alcohol consumption.[271,272] Fluoxetine (a selective serotonin re-uptake inhibitor) reduced mood symptoms and alcohol consumption in people with alcohol dependence who were clinically depressed.[273] Kranzler et al.[274]

found similar results for fluoxetine and naltrexone. There is some evidence for the use of naltrexone in the management of alcohol abuse[275-278] for people with concurrent mood/anxiety disorders.

In the past decade there has also been some evidence that pharmacotherapeutic interventions can be effective in reducing symptoms associated with post-traumatic stress syndrome and substance use disorders. Trotter et al.[279] observed positive results in a 12- week trial of sertraline in an alcohol dependent sample of individuals (two-thirds female) with co-occurring post-traumatic stress syndrome. The results indicated significant reductions in post-traumatic stress syndrome symptomatology, substance abuse and symptoms of depression.

Best Practice Recommendations

- An integrated approach to treatment/support(see Section 2.3 for discussion of program and system integration) is recommended.
- With the exception of post-traumatic stress syndrome (PTSD), and in the context of this integrated approach, a sequencing of the specific intervention (beginning with the substance abuse) is recommended, accompanied by ongoing assessment and adjustment of the treatment/support plan if the mood and anxiety disorder does not improve following an improvement in the substance use disorder.
- For post-traumatic stress syndrome an integrated treatment approach that deals with both the post-traumatic stress syndrome and substance abuse at the same time is recommended.
- The best current evidence for the treatment of concurrent substance use and mood and anxiety disorders, including post-traumatic stress syndrome, is cognitive-behavioural treatment.

3.3.2 Co-occurring Severe and Persistent Mental Disorders

a) Prevalence and Etiological Issues

While many specific psychiatric disorders fall under the general rubric of "severe and persistent mental illness", the most common diagnostic categories are schizophrenia and bipolar illness. The literature on the prevalence of concurrent substance use and severe mental illness disorders is most recently summarized by Rosenthal and Westreich,[39] Drake and Muesser[64] and Mueser and colleagues.[44] The general conclusion from these reviews and others[4,40] is that between 40-60% of individuals with severe mental illness will develop a substance use disorder at some point during their lives, and about half currently meet criteria for substance abuse or dependence.[75,101] These rates are clearly higher than the prevalence of substance use disorders among people in the general population without concomitant psychiatric

disorders. Diagnostic sub-groups within the general category of "severe and persistent mental illness" do not show a high preference for one type of substance over another. Alcohol is the most frequently abused followed by cannabis and cocaine.[44] Drug use preferences basically follow those in the general population.

Schizophrenia: For schizophrenia specifically, population surveys have consistently shown elevated rates of alcohol use disorders (about three times the risk), and drug use disorders (about five times the risk).[75,76] Several studies reviewed by Mueser et al.[44] have also shown the high rates of substance use disorders among people with schizophrenia who are in treatment for the illness. Cuffel[101] suggests that about half the youth at the first episode of schizophrenia present with or will develop a substance use disorder. Among people in treatment for alcohol abuse, the lifetime prevalence of schizophrenia is in the order of 4.5% to 6%, and among those in treatment with drug use disorders, 28%.

Bipolar disorders: With respect to bipolar disorder, it is widely acknowledged to be the most common Axis I disorder to co-occur with substance use disorders. For example, in the classic ECA study by Regier et al.[75] the lifetime prevalence of any substance abuse or dependence among persons with any bipolar disorder was 56.1%. Further, the rates of substance abuse among those with bipolar disorder were several times higher than among those with unipolar depression. The high rate of co-morbidity has also been demonstrated among people in treatment for bipolar affective disorder, and among people seeking treatment for substance use disorders (see, for example, Weiss et al. [280] and Rosenthal and Westreich[39] for an overview of key studies and reviews).

As with all the concurrent disorders, co-occurring substance abuse/dependence and severe mental illness can interact in several complex ways that have important implications for screening, assessment and the planning of treatment and support. A detailed discussion of interaction issues specific to bipolar and substance use disorders and schizophrenia and substance use disorders is provided by Strakowski and Debbello[281] and Blanchard et al.[282] respectively. For severe mental illness generally, Mueser et al.[45] review the various etiological and interaction models and find considerable support for a *super-sensitivity model* whereby people with severe mental illness are more sensitive to the effects of alcohol and other drugs due to increased biological vulnerability and, therefore, experience more negative consequences from relatively small amounts of alcohol or other drugs.

While more research is needed, experts generally agree that multiple factors are likely to be important for different groups of people, and even within the same person. It is generally understood, however, that severe and persistent mental disorders such as schizophrenia and bipolar disorder follow their course with or without significant improvement or recovery from the substance use disorder.

b) Screening and Assessment Issues

Screening for an alcohol or drug problem among people with concurrent severe and persistent mental illness can be accomplished with one or more of the screening tools identified in section 3.1.2. Indeed, it is this subgroup of people with whom most of the research on screening tools and assessment issues has been conducted. Specific examples for screening procedures and tools include the index of suspicion provided by Mueser and colleagues;[44] the DALI;[173] and the AUDIT.[187] Case manager ratings may also be particularly effective given the length of time that many people with severe mental illness may be involved with a case management program. The following assessment instruments have also been developed or tested specifically for this sub-group:

- the Alcohol Use Scale;[206]
- the Drug Use Scale;[206]
- the Substance Abuse Treatment Scale;[62]
- Readiness-to-change.[218]

An important implication of the super-sensitivity model discussed above[45] is that only a minority of people with concurrent substance abuse and severe persistent mental illness may be able to sustain controlled substance use. This is because moderate use may result in negative consequences or dramatically increase the risk of more severe substance use. It is critical to educate consumers about their biological sensitivity to the effects of alcohol and drugs. This process can begin during the assessment phase.

Assessing motivation and the stage of treatment is particularly critical as the findings are directly related to treatment planning.[62,218] Similarly, with respect to the assessment of medical and psychosocial needs (e.g., housing, food, health care). Mueser and colleagues[44] provide an up-to-date treatment of these, and many other assessment related issues and challenges with people with co-occurring substance abuse and severe and persistent mental illness. For this new sub-group it is recommended that the reader consult this new resource book from Mueser and colleagues.[44] See Appendix G for a list of common obstacles to assessment with this sub-group and potential solutions.

c) Treatment Implications and Clinical Issues:

Clients with combined severe mental illness and substance use disorders encounter serious cognitive and affective problems in addition to interpersonal difficulties. For instance, people in treatment for schizophrenia may experience hallucinations, have reduced emotional responses, and may at times be thought-disordered or express delusions. There is little harmony between cognition, emotional experiences and their expression. Since many of these individuals often have difficulty engaging in relationships with people in general, such may also be the case with a therapist. The decision-making process that is required to overcome inappropriate consumption

patterns is affected by the ambivalence that characterizes these clients. Therapists that are working towards a remission of substance-related disorders may find it difficult to identify a real sense of motivation in their clients. Moreover, the misuse of substances will affect the pharmacodynamics of the medication taken for the primary disorder, exacerbating all the symptoms. Finally, the lack of social supports, adequate housing, meaningful daytime activity, as well as the functional impairment require a multifaceted approach to treatment and support.

d) Review of the Evidence

This section summarizes the evidence relevant to two questions:

- Is there evidence for or against a particular sequencing of interventions?
- Is there evidence that points to one or more specific treatment approaches or interventions as being particularly effective?

i) **Sequencing:** There is a broad consensus, supported by research and current practice wisdom[35,44] that people with concurrent substance abuse and severe and persistent mental illness are best treated in an integrated program or system of services that deal concurrently with both the mental health and substance use problems.

ii) **Intervention:** In addition to studies which have examined outcomes associated with the degree or types of program integrations[35] there have been a small number of studies of specific interventions for this sub-group. Jerrell and Ridgely[283] conducted a partial experimental study (about 50 % of people were randomly assigned) to treatment conditions comparing a 12-step program, behavioral skills training and intensive assertive case management. Each of the latter two interventions was more effective than the 12-step condition on mental health outcomes and global life satisfaction. However, the effects on substance use were quite modest.

The effectiveness of the intensive case management and assertive outreach using Program for Assertive Community Treatment (PACT) model was examined in several of the studies reviewed by Drake et al.[35] This outpatient model involves a multidisciplinary team of specialized substance abuse and mental health professionals serving as the core resource and support team for a small number of consumers. It retains several features of the basic ACT model[284-286] including 24 hour, seven day a week coverage, assertive outreach, counseling and psychosocial supports complemented with specific substance abuse interventions tailored to the persons stage of change/stage of treatment motivation. In one of the better controlled studies,[206] consumers in the PACT conditions showed more progress toward substance use recovery and decreased substance use severity.

Currently, the recommended compilations of empirically supported treatment and practice wisdom for this sub-group of people with concurrent disorders are the new resource book by Mueser and colleagues[44] and the recent review by Drake and Mueser,[64] Mueser and colleagues[44] first recommend the critical (i.e. minimal) components of a solid foundation of mental health services which must then be complemented by specialized concurrent disorders services.

The foundation of mental health services includes:

- medical management (including psychopharmacology);
- family support and education;
- supported employment;
- training in psychiatric self-management;
- crisis response services;
- housing;
- and, when needed, inpatient psychiatric hospital services.

The core components of specialized concurrent disorders treatment and support include:

- concurrent disorders assessment;
- clinical case management based on stages of treatment;
- motivational interviewing;
- a harm reduction approach (e.g. flexible goals);
- cognitive-behavioral substance abuse counseling;
- concurrent disorders group interventions, including social skills training groups;
- self-help liaison (e.g. Double Trouble; AA);
- work with families including behavioral family therapy and psychoeducation; and
- residential options, including housing.

Most consumers with co-occurring substance use disorders and severe and persistent mental illness will demonstrate serious impairment in several areas, such as work or school, family relations, judgment, thinking, or mood.[225] As clinicians and support workers assisting this population know, these functional limitations will probably not disappear. The clients require detailed functional

assessment, long term support, and an ongoing monitoring of functioning as part of the integrated treatment program.[35] In contrast with the heavy and regular use of substances by consumers with co-occurring mood/anxiety disorders, the consumption patterns of many of these consumers may have features more consistent with alcohol or drug abuse than severe dependence *per se*. This occurs, for example, when periods of heavy consumption are mediated by experiences of high stress.

While a high level of social-emotional support is likely to be needed to help the person with a severe mental illness remain in the community and remain at least minimally functional, the person's problems, risks and needs are greatly exacerbated by co-occurring substance use problems. Symptoms and related patterns of social functioning will normally be more negatively impacted by the interaction of two disorders. The fear experienced by many, especially after the first psychotic episode is quite overwhelming - sometimes characterized as "I thought I had lost control of myself and I would never come back." Social support often brings with it more stability and sufficiently adequate social functioning to remain in the community while taking part in an active and hopefully integrated treatment enterprise. With people with schizophrenia, for example, treatment and support, and the language of treatment and support, must be concrete, socially engaging and stabilizing. While self-help groups provide some support, people with severe mental illness must often rely on professional services for both therapy and social support. Active advanced case management that is able to integrate social support and some therapy holds promise.

As described above, a wide range of social supports may increase the likelihood of psychosocial stability, with sufficient integration and stability of the self to enable the person to actively participate in the ongoing assessment and treatment enterprise. These engagements are not likely to be consistent over time and mental health and substance abuse professionals must be prepared for instability of gains and regressions without blaming the client for being resistant to treatment, or consciously choosing relapse.

Best Practice Recommendations

- An integrated approach to treatment/support (see Section 2.3 for discussion of program and system integration) is recommended.
- Within this integrated approach, it is recommended that interventions for substance abuse and severe mental illness be planned and implemented concurrently.
- The best current evidence is for a range of services, including a staged approach to engagement and service delivery; outpatient setting; motivational interviewing and cognitive behavioural treatment; harm reduction and comprehensive psychosocial rehabilitation supports, to name a few program/system components.

3.3.3 Co-occurring Substance Abuse and Personality Disorders

a) Prevalence and Etiological Issues

The results of a number of studies show that the overlap in personality disorders and substance use disorders is very high among people seeking help at substance abuse services.[104] Using DSM-III diagnostic criteria, the proportion of individuals attending substance abuse treatment that are found to have at least one personality disorder varies from 53 % to 100 %[102-104,295]. The WHO classification system (ICD), which is stricter than the DSM criteria, yields more conservative estimates of the prevalence of personality disorders.[287,296] Individuals entering mental health services for the treatment of personality disorders also have high rates of concurrent substance use disorders.[288]

Substance use behaviour can lead to criminal activity, aggressiveness, disinhibition, chaotic lifestyle and therefore resemble personality disorder diagnostic criteria. Although overlap in the diagnostic criteria is apparent, studies that have examined this problem and adjusted for symptom overlap have still found substantial comorbidity.[288,289]

Antisocial Personality Disorder: While all types of personality disorders are found within individuals in substance abuse treatment, most research on the rates of co-occurrence concentrate on the cluster B disorders (e.g. antisocial, borderline, narcissistic). *Antisocial personality disorder* (ASPD) has received considerable attention because it presents the highest association with substance use disorders. Antisocial personality disorder is also the only Axis II personality disorder that can be assessed by lay interviewers using the *Diagnostic Interview Schedule* or DIS.[301,290] It is, therefore, the most commonly measured. The prevalence rates of antisocial personality disorder using DSM-III-R criteria in samples of people being treated for alcohol use disorder, vary from 10% to 53%.[92,97,291,292,302]. In the *Epidemiological*

Catchment Area Study[303] the probability of presenting with a diagnosis of antisocial personality disorder was multiplied by four for men and by 12 for women, when an alcohol use disorder was present.[92]

Antisocial personality disorder, closely related to substance use disorders and conduct disorder, the childhood precursor to antisocial personality disorder, is a common antecedent problem among persons who subsequently develop mental illness. Further, antisocial personality disorder is more common among clients with severe mental illness than in the general population[45] Thus, the evidence is reasonably strong that antisocial personality disorder is a *common etiological factor* that may account for at least some of the higher rates of concurrent substance abuse among clients with severe mental illness.

Borderline Personality Disorder: With the exception of individuals diagnosed as antisocial, those diagnosed with a *borderline personality disorder* (BPD) are more likely, compared to other subgroups of people receiving psychiatric services, to meet the criteria for a substance use disorder.[288,293-295] Studies on the co-morbidity of borderline personality disorder and substance use disorders report an overlap ranging from 15% - 66%.[296-299] In studies of individuals attending alcohol treatment centres, reports of the prevalence of borderline personality disorder range from 13%-65%.[296,299,300] Kosten et al.[134] observed a rate of 12% of co-occurring borderline disorder in a sample of 150 people in treatment for opiate dependence. Epidemiological studies of individuals in the mental health system indicate even higher rates of co-occurrence between borderline personality and substance use disorders. In a study of 50 psychiatric outpatients who met criteria for borderline personality disorder, 84% had met criteria for a substance use disorder sometime in their life.[295] In a Canadian study of people with borderline personality disorder, 23% met lifetime criteria for a substance use disorder.[301] A large study with a sample size of 2,463 examined the overlap between borderline personality disorder and substance use disorders among people admitted to a psychiatric hospital and found a prevalence rate of 21%.[293]

A number of issues should be kept in mind when interpreting these findings. These studies were almost exclusively carried out with individuals in treatment settings and, therefore, may be biased towards the detection of people experiencing greater dysfunction.

b) Screening and Assessment Issues

The validity of a diagnosis of personality disorder has long been a controversial subject.[302] Its onset in adolescence or early adulthood is a necessary condition for diagnosis. However, the reliable assessment of personality disorders, especially in individuals with substance use problems, poses significant challenges. Since the assessment of a personality disorder can be contaminated by the effects of the substance use, it can be difficult to separate out the effects of the drug use from behaviour that constitutes a true personality characteristic. This phenomena has been described as *the trait-state artefact.* Substances can increase mood instability, impulsivity, and interpersonal problems, which are features of personality disorders. Structured classification instruments and clinical interviewing are recommended to

improve the reliability of diagnoses. A number of simple screening tools can be used to detect features of personality disorders. Self-reports such as the Personality Interview Questionnaire II[303] or the Personality Diagnostic Questionnaire –4th Edition[304] provide a basic screen of Axis II symptoms. The Borderline Personality Disorder Scale[305] is a useful approach to screen for symptoms associated with borderline personality disorder. The weakness with these self-administered questionnaires is that they have yielded high rates of false positives. These instruments should be utilized as a first step in a more comprehensive assessment.

Diagnosis of personality disorders should be conducted in a clinical interview with a qualified mental health practitioner (e.g., psychologist, psychiatrist, registered social worker). Structured interviews are recommended to facilitate more reliable diagnosis. The best and most widely known interview is the Structured Clinical Interview for the DSM-IV Axis II Personality disorders.[306] Another well established interview is the International Personality Disorder Exam (IPDE)[307] used by the World Health Organization. This instrument may not be as useful for clinicians since it is long and requires more training than the SCID. Both of these structured interviews for diagnosing personality disorders require clinical expertise in noticing clinically relevant criteria. In addition to assessing for the presence of a personality disorder, as with all individuals with concurrent disorders, an assessment of functioning is necessary. Those individuals with lower levels of functioning have a poorer treatment prognosis and will require more ongoing support.

It is important to assess the relationship between anger management difficulties and anti-social personality disorder. Many but not all people with an anger disorder will also have an anti-social personality disorder. Timing issues are important to investigate since resumption of substance abuse is a key predictor of relapse into an anger-aggression cycle.

c) Treatment Implications and Clinical Issues

The clinical implications of concurrent personality and substance use disorders have been described in a number of studies. Generally, individuals with both disorders experience greater dysfunction than their substance abuse counterparts without a personality disorder.[297] Studies suggest that individuals with personality disorders not only have higher rates of substance use generally but are more likely to be polydrug users.[134] Further, a consistent finding is a higher comorbidity of personality disorders in drug users than alcohol users.[308] People with a substance use and borderline personality disorder compared to substance abusers without borderline personality disorder are more likely to have a history of self harm behavior including suicide attempts; comorbidity for depressive disorders; and poor impulse control.[134,296,297] Many individuals with concurrent personality and substance use problems have high rates of chronic unemployment and lack social supports. These factors make it difficult for treatment to be effective since therapists cannot rely on a stable and constructive environment to support change.[309,310]

Treatment of substance users who have a concurrent personality disorder poses a number of special challenges to clinicians. The clinical literature on individuals diagnosed with both disorders describes treatment as notoriously difficult. Interpersonally, these individuals are more rigid which contributes to greater difficulties in interpersonal relationships in the work place, with relatives and friends, as well as with therapists and treatment centres. These individuals often have greater difficulty with trust and intimacy. People with borderline personality who abuse alcohol and other drugs have been observed to be ambivalent about therapy and only moderately compliant.[311] These individuals are typically more avoidant, especially of cues associated with negative affect, and this is associated with impulsive behaviour via rapid acting, mood-altering substances.[312] For individuals with concurrent antisocial personality disorder, the ideas and behaviors that are at the core of the problem may be experienced as quite "natural". In addition, these individuals often have difficulty understanding the impact of their behavior on others. These features of the disorder increase the challenge for the therapist. Working with these individuals often leaves treatment providers feeling stressed. Consequently, it can be more difficult for clinicians to establish a working alliance, and retention in treatment is lower.[313]

d) Review of the Evidence

This section summarizes the evidence relevant to two questions:

- Is there evidence for or against a particular sequencing of interventions?
- Is there evidence that points to one or more specific treatment approaches or interventions as being particularly effective?

i) **Sequencing:** At this point much is unknown about what is the best approach to treating individuals with a concurrent personality and substance use disorder. The bulk of the literature to guide recommendations on treatment is primarily based on the results of research on the treatment of one disorder while tracking the impact on the other disorder. The results of these studies have conflicting implications for whether or not to utilize a concurrent treatment approach with this combination of disorders.

There is some literature, such as the recent study by Verheul et al.[145] to suggest that the best predictor of remission of the personality disorders is a recovery of the substance use. In other studies the components of 12-step programs within substance abuse programs have been observed to have an effect on personality structure.[314] Another study conducted a one-year follow-up of people attending a 6-8 week alcohol treatment program and found that people with concurrent borderline personality disorder showed significant improvements in leisure time satisfaction, decreased hospitalizations and stronger family relationships.[315] The implications of these research findings is that the focus of treatment should be the recovery of the substance use disorder, this being the key to the remission and/or improvement of the Axis II disorders.

In contrast to the above-mentioned studies, many other studies have found that the presence of a co-occurring personality and substance use disorder negatively affects the outcome of the index disorder. Kosten et al.[134] in a study of 150 opiate users observed that 2 ½ years following substance abuse treatment, individuals diagnosed with personality disorders had a poorer outcome. In other studies, the presence of antisocial personality disorder was associated with poorer social functioning, higher levels of substance use and worse response to traditional substance abuse treatment programs.[131] The presence of antisocial personality disorder features has been linked to higher dropout rates from substance abuse treatment.[316] These findings suggest that the presence of the two disorders is associated with poorer treatment prognosis, and that the concurrent treatment of both disorders is critical. Many clinicians conceptualize the Axis II disorder as independent from the substance use disorder and that improvements in the area of substance use may be difficult to accomplish without simultaneously addressing the disturbances in character.

Studies of integrated models for treating co-occurring personality disorder and substance use disorders are scant. There is some recent evidence to suggest that treatment of borderline personality disorder and substance use disorders at the same time can be effective.[317] Further, prevailing clinical wisdom is that concurrent treatment is likely more sensitive to addressing the issues associated with borderline personality disorders and substance use disorders. In contrast to the treatment of clients with borderline personality disorder, most clinicians generally recommend routing clients with antisocial personality disorder and substance use disorders into substance abuse treatment. This trend likely reflects the lack of empirically supported treatments for antisocial personality disorder itself.

ii) **Interventions:** Though evidence for the specificity of psychosocial treatments has not been established, there is increasing interest and promise in cognitive behavioral approaches. Dialectical behavior therapy (DBT), developed by Linehan,[318,319] has recently gained considerable notice in the literature because of its empirical support. DBT is based on a biosocial theory that views the dysfunctional behavior as a problem-solving behaviour, which functions to soothe painful emotions.[318] From this perspective, while substance abuse behaviour is considered to be a maladaptive response, it is hard to change because it helps in the short run to modulate overwhelming, uncontrollable, and intensely negative emotions.[312]

Linehan and Dimeff[312] have developed a treatment manual that articulates an extension of standard DBT to fit the needs of borderline individuals with concurrent substance abuse disorders (DBT-S). The treatment emphasizes attachment strategies to increase retention, strategies to address urges and tendencies to use drugs, *ad lib* case management to provide coaching to address concrete needs, and pharmacotherapy where indicated with specific subtypes of substance users (e.g., methadone for opiate dependent individuals).

In a recent study, Linehan et al.,[317] randomly assigned 28 women to DBT or a treatment-as-usual condition of community-based care. The women who were diagnosed as having borderline personality disorder, were dependent on alcohol or other drugs and tended to have other psychiatric diagnoses. The women received one-year of treatment, including individual therapy and group skills training. Results indicated that those receiving DBT compared to the control group had significantly greater reductions in their substance use. The women in DBT were also more effectively retained in treatment; 64% compared to 27%. As well, those in DBT had better social and global adjustment after one-year of treatment, and at 16-month follow-up. A replication of this study is currently underway,[320] and further studies with larger sample sizes are needed.

Regardless of the specific treatment approach, the degree of overall impairment should be used to guide treatment interventions. Some people with co-occurring personality and substance use disorders may not present with significant functioning difficulties. These individuals have the best prognosis. Others may present with moderate social and occupational impairment and lack coping skills. While one may expect an amelioration with a significant improvement or recovery from the substance use disorder, the prognosis is not as good as with higher functioning individuals. A frequent problem for individuals with co-occurring personality and substance use disorders is their serious impairment in several areas of functioning. Many of these individuals lack money, work, food and/or shelter. They may have been evicted from housing situations; be on no admit lists to housing resources; be living in abusive relationships; be engaged in very disturbed family relations; and may have trouble with the law. Assistance and ongoing support is needed for these problems. This can be achieved through intensive case management and ongoing monitoring of functioning. Assertive outreach may be necessary to reduce the likelihood of premature termination from treatment.[312]

Best Practice Recommendations

- An integrated approach to treatment/support (see Section 2.3 for discussion of program and system integration) is recommended.
- Within this integrated approach, it is recommended that interventions for substance abuse and borderline personality disorders be planned and implemented concurrently.
- Evidence on the treatment of antisocial personality and substance use disorders suggests addressing the substance use problem first.
- The best empirically supported treatment for borderline personality and substance use disorders is dialectical behaviour therapy (DBT), which includes behavioural skills training.

3.3.4 Co-occurring Substance Abuse and Eating Disorders

a) Prevalence and Etiological Issues

With increased concern about concurrent disorders in the past two decades, there has been more attention to the combination of substance use and eating disorders. Common types of eating disorders are anorexia nervosa, bulimia nervosa and binge eating. Most of the data on the co-occurrence of substance abuse and eating disorders is based on samples of people with the latter. While the association between eating and substance use disorders is higher than expected it also varies significantly across studies (3% to 49%).

Substance abuse is clearly higher among individuals with bulimia than those with restricting anorexia.[321-323] The reported rates of co-occurrence with anorexia nervosa are estimated to range from 6.7% to 23%.[324,325] In contrast, estimates of the prevalence of co-morbid bulimia nervosa and substance abuse problems range from 9% - 55%.[326-331] From the reverse perspective, studies of the prevalence rates of eating disorders within the substance abuse treatment population also yield highly variable estimates, ranging from 1% to 32%.[248,332-334] In one study of people with alcohol dependence, 10% had a lifetime history of anorexia nervosa and 20% had a lifetime history of bulimia.[335] In another study of individuals presenting to an alcohol treatment centre for the first time, 7% met current criteria for anorexia and 7% met criteria for bulimia.[336] In a study of people abusing cocaine, 32% met DSM- III criteria for anorexia nervosa, bulimia or both, less than 1% of men and 4% of women met criteria for anorexia whereas 20% of men and 23% of women met criteria for bulimia.[348]

Divergent theories have been put forth to explain the association between eating disorders and addiction problems. These theories emphasize the biological, psychological and behavioral mechanisms that link them. One prevalent view is that both disorders reflect addictive disorders.[337-339] There is a growing opinion that eating disorders are different from other addictive behaviors. One theory is that the eating and substance use disorders are linked by underlying difficulties in the regulation of affect. From this perspective, the problematic behavior functions to regulate painful affect.[340,341]

b) Screening and Assessment Issues:

Given the higher than expected prevalence of eating disorders in individuals with substance abuse problems, it is important for people to be routinely screened for the presence of an eating disorder when presenting to substance abuse treatment services. The importance of this initial screening must be underscored with clinicians working within the substance abuse treatment system who may be more inclined to overlook emaciation and poor appearance as a secondary effect of substance use. Inquiry should not be limited to individuals who appear underweight since there are higher rates of bulimia amongst individuals who abuse psychoactive substances. Individuals with bulimia may frequently appear of normal weight and, therefore, their symptoms may not be readily apparent.

Individuals with eating problems often do not volunteer information about their bulimia and compulsive eating without direct questioning about their symptoms and the problems may go undetected. A variety of assessment measures are available but tend to be lengthy or incomplete in their focus. The Psychiatric Screener discussed in the previous section on generic mental health screening is one tool that can be used to screen for an eating disorder.

More attention also needs to be directed at the detection of eating disorders in men. A growing number of studies[342,343] have observed high rates of eating disorders amongst men with substance use disorders. Since eating disorders are generally viewed as a disorder linked to women they are more likely to be overlooked in men. For example, clinicians have been observed to make more inquiries into eating disorder symptoms with thin women than with thin men.

For those people suspected as having an eating disorder on the basis of the initial screening, they should then be assessed using standardized diagnostic criteria (e.g., DSM-lV) to ensure reliable measurement. Assessment should focus on both current and past symptoms since clinicians caution that eating disorder symptoms often resurface as the substance use problems improve. Assessment of the eating disorder should also be repeated to determine its course in relation to possible improvement or worsening of the substance use disorder.

c) Treatment Implications and Clinical Issues

There are a range of physiological, physical, psychological and social consequences associated with the co-occurrence of eating disorders and substance use problems. Depending on the severity and chronicity of these disorders, their impact can range from mild to life threatening. Problems stemming from weight loss include fatigue, anxiety, sluggishness, amenorrhea and depression.[344] Some individuals report using drugs, such as cocaine or methamphetamines which are anorectic agents, in the pursuit of low body weight. Others may rely upon substances to interrupt binges, elevate mood or to cope with the numbness. There is some evidence to indicate that eating and substance use disorders are associated with greater dysfunction, in particular problems with impulsivity, affective instability and instability. One study showed that individuals with concurrent anorexia nervosa and alcohol abuse had higher levels of theft, binge eating and purging.[321] Individuals with both disorders often have greater difficulty achieving abstinence and are more likely to relapse.[342] Other research indicates that substance using individuals with a concurrent eating disorder compared to those with only an addiction problem have:

- more severe substance problems (with the exception of heroin and tobacco);
- poorer health, more disturbed cognitive functioning (e.g., memory problems, confusion);

- greater affective instability;
- interpersonal problems; and
- poorer global functioning.[343]

The treatment of individuals with both disorders can be especially challenging to health professionals because few have the familiarity or expertise in the treatment of both disorders. The consequence of this is that clinicians often tend to focus on the treatment of the disorder with which they are most familiar. While expertise in both disorders is recommended, if this is not possible, consulting with other professionals who possess the requisite knowledge is necessary.

d) Review of the Evidence

This section summarizes the evidence relevant to two questions:

- Is there evidence for or against a particularly sequencing of interventions?
- Is there evidence that points to one or more specific treatment approaches or interventions as being particularly effective?

i) **Sequencing:** The dearth of research literature on the treatment of both of these disorders limits the conclusions that can be drawn about the most effective treatment. There do not appear to be any controlled trials to evaluate the effectiveness of treating individuals with co-occurring eating and substance use disorders. This is largely due to the fact that until recently there have been no integrated treatment programs for people with concurrent substance use and eating disorders. Indeed, the presence of eating disorders in substance users has typically been ignored.

There are conflicting data on the effects of treating one disorder and tracking the other. A few studies have observed that the treatment of individuals with bulimia nervosa is not impacted by a prior history of psychoactive substance use.[345,346] On the other hand, other research shows that the treatment of one disorder without attention to the other can reduce the overall effectiveness of treatment.[336,347,348] Some clinicians speculate that as the substance use problems improve, the eating disorder may worsen due to symptom substitution. It may be difficult to break patterns of problematic eating and substance use without education and the development of effective coping strategies.

The prevailing clinical wisdom on the treatment of individuals with both disorders calls for interventions to be planned and implemented concurrently.[349] Notwithstanding this view, there are compelling clinical reasons to suggest that if either of the disorders is so severe that it compromises the individuals' life, or critical aspects of functioning, treatment should first be targeted to that disorder.

Once the more serious disorder is stabilized the two disorders can be treated simultaneously. If neither of the disorders could be considered severe, or both are equally severe, they should be targeted simultaneously.

ii) **Intervention:** Regardless of theoretical orientation, the majority of writers on this topic recommend a combination of:

- medical management to stabilize the individual;
- behavioral strategies to effect change in the eating and substance use behavior; and
- psychotherapy to address psychological issues.

A few integrated approaches to the treatment of these disorders have been described in the literature but are lacking empirical evaluation. A 12-step approach which integrates principles from Alcoholics Anonymous and Overeaters Anonymous has been described.[361] Within this model, both disorders are seen as being linked by an underlying addictive process. A few descriptions of inpatient programs for women with concurrent eating and substance use disorders are also described in the literature.[350,351] These programs integrate a variety of treatment strategies with common elements that include:

- a thorough psychosocial and medical assessment;
- monitoring of weight and food intake;
- nutritional assessment;
- dietary plans and supervision;
- behavioral modification to increase awareness of eating behaviors and stabilize aberrant behavior;
- education to address the denial associated with both disorders;
- psychopharmacology for severe symptomatology;
- individual and group therapy; and
- after-care.

At the Centre for Addiction and Mental Health, in Toronto, an integrated program for individuals with co-occurring eating disorders and addiction problems was recently established. The program provides outpatient treatment, based on a modified version of Linehan's[329] Dialectical Behavioral Therapy model developed for individuals with borderline personality disorder.[318] The emphasis is on reducing relapse to eating and substance behaviors. Program participants attend weekly individual therapy and group skills sessions. Work is currently underway to evaluate this program.

Future research is needed to address what is the most effective treatment for this population.

Best Practice Recommendations

- An integrated approach to treatment/support (see Section 2.3 for discussion of program and system integration) is recommended.
- Within this integrated approach it is recommended that interventions for substance abuse and the eating disorder be planned and implemented concurrently unless there are compelling clinical reasons (e.g., life threatening factors) for focusing on one of the disorders first.
- The most promising intervention is a combination of medical management; behavioral strategies to effect change in the eating and substance abuse behaviour; and psychotherapy to address psychological issues.

4.0 Implications of Best Practice Guidelines at the System Level

4.1 Historical Perspective and Current Status

Ryglewicz and Pepper[34] provide a historical perspective on the rapid increase in the number of people in the community with concurrent disorders over the last 20-30 years. They note the historical separation of three very distinct clinical populations – mental patients, alcoholics and drug addicts. The former were in psychiatric institutions. Alcoholism was not seen as a problem until well along its course and, if treated at all, it was in highly specialized treatment facilities. Drug addiction was seen as confined to a small segment of society and viewed largely in a criminal context. These times have vanished with the shift coming primarily from the de-institutionalization of mental health services; the corresponding movement towards community support for people with severe mental illness;[73] and the increasing availability of drugs in the community since the 1960's. So rather than the three formerly separate clinical populations there are now large groups of people in the community with overlapping and interacting mental health and substance use problems. The difficulty from the service delivery perspective is that community agencies, planners and policy makers have been stuck in the *single-problem* mode of thinking because of the long established barriers between the treatment systems for mental health and substance abuse. The barriers came about as a result of separate training and development in the two fields, which became entrenched in separate funding, administrative and policy structures. An additional barrier is the *perceived* complexity, uncertainty, and level of difficulty associated with a more integrated approach.

Taking an historical perspective on the emergence of the two systems of care and support for people with mental health and substance use disorders helps to better understand the problems being faced by consumers who currently need to cross over the two systems. Placing things in an historical perspective also helps us understand the current status of efforts to improve on the situation at both the service delivery and system levels. At both levels, the barriers across the two systems are being eroded ever so slowly. Some provinces/territories are now in various stages of merging their mental health and substance abuse services.

4.1.1 Similarities across the two systems

Planners, policy makers and service providers in the fields of mental health and substance abuse in Canada are finding themselves on common meeting ground. Examples include, but are not limited to:

- the acceptance of a broad bio-psychosocial model for mental health and substance use problems, and the need for a continuum of care which recognizes the value of many different types of services;

- the legitimate role of self-help organizations in both sectors and, in particular, the emergence of the consumer survivor movement in the delivery of mental health services. This shift counterbalances professional perspectives and training with lived experiences which give high priority to more basic needs of food, shelter, clothing, work, friendship, etc.;

- the increasing role of pharmacologic therapy in the treatment of substance use and advances in genetic research in both fields;

- the growing recognition of family members and significant others both as a group in need of services themselves, and as a critical support in developing and implementing an individual's care and support plan;

- the extent to which both mental health and substance abuse treatment services are linked to the correctional system and other issues related to formal and informal social control;

- the significant role of stigma in both fields, not only as a factor influencing help seeking and outcome, but also as part of the community context that calls for advocacy and public education;

- the potential for common, or at least converging, outcome indicators and other performance measures;

- the increasing recognition of the overlap in the population needing help and expressed needs of consumers for better continuity of care within and across the respective systems.

Despite the many areas of common ground that have emerged in recent years between the addiction and mental health systems, including the merging of the two systems at the provincial, department level, in some provinces, significant challenges remain in the development of integrated care and support for people with concurrent disorders.

4.1.2 A Less Prescriptive Approach at the System Level

In Canada and elsewhere we are just at the beginning stages of developing and trying out various strategies to better integrate services at the systems level. There is very little published information that goes beyond an assessment of the many challenges and barriers to systems integration, to actual implementation and evaluation of different concrete strategies. In general, however, the current state of knowledge *and practice wisdom* is not sufficiently developed to offer best practice recommendations at the system level.

There were two complementary components to this project – focus groups with consumers and a survey of key informants. In each component, the focus was the system-level implications for the best practice guidelines.

4.2 The Consumer's Experience and Perspective

In order to keep the best practice advice grounded in the experience and expressed needs of people with concurrent disorders, five focus groups were held with current or former consumers of mental health and substance abuse services, to determine those aspects which had implications for planning integrated programs and systems for screening, assessment and treatment/support. We held two groups in Quebec, two in Ontario and one in British Columbia. Participants were recruited through local mental health and substance abuse programs or integrated concurrent disorders programs. Each group had between 5-8 participants who were remunerated for their time and transportation costs. They consented to the use of their comments for the purposes of this project. The two groups that took place in Quebec were conducted in French. Each group was facilitated by a trained mental health or substance abuse professional and discussion was guided by a predetermined topic list (see Appendix H). The discussion was summarized and analyzed for themes relevant to the objectives of the project. The focus here is on the main themes that emerged and the implications at the system level.

4.2.1 Results of Focus Groups

There was a very high level of consistency across the various groups. The strongest theme that emerged was the *additional and severe stigma* associated with having both substance use and mental health problems. The stigma expressed itself in various forms, including repeated and chronic self-harm experiences, self-deprecation, the fear of being judged, and the hurtful experience of judgmental attitudes.

> *I would really like to say the threat of being punished for being an addict and having any sort of mental illness, there always seems to be this threat hanging over that we are in some way responsible for this, we brought this upon ourselves, and if we don't do A, B or C then our children will be taken and our welfare will be cut, our housing will be gone … there's just such an extraordinary threat and that just absolutely add on to already extraordinary pressure, and I mean its very demoralizing.*

> *Feel like there is a lot of pressure not to get help, its like get on with your life, get back to work, what are you doing, you're not working, well why aren't you working …*

A related theme was the high need for *support and continuity of care* to deal with their wide range of health and psychosocial difficulties, including for example, the need for housing, prenatal or child care, income, employment, and money for transportation. The support of family, friends, employer and the agency support worker were seen as critical.

> *I've had a mental health worker to stand beside me, but she's always, always been there for me and I think that's what really made me better, that constant, constant continuous care.*

That there are clearly *two systems of care* was another emergent theme. For some people there were feelings of immense frustration and anger with being shunted back and forth between mental health and substance abuse agencies, and with the lack of openness in both types of services to talk about their dual sets of problems. Some people felt that when in the substance abuse system they had to treat the substance abuse problem first and they were openly discouraged from talking about their mental health issues. Others expressed frustration with the mental health system.

> *What (mental health) providers do is they'll look at me and say I'm in a real abuse stage, they say forget about the mental health issue you've got a real substance abuse problem and you've got to go get help for that and either they ignore the using or the fact that I have an addiction, or else they won't even deal with the mental health aspect of it because I've been using.*

For some participants there was an acceptance of the two systems of care; an acknowledgment that "this is how things are set up"; and even expressions of surprise that one might deal with substance use problems in a mental health program and vice versa. For example, those holding this view accepted the fact that they would deal with substance use problems only within a substance abuse program. Not only did service providers not ask about the other issue, this was not always seen as a concern because clients felt it was up to them to disclose the information. Only once they had established a relationship of trust with the service provider would they feel comfortable discussing both issues. The need to have a strong and supportive relationship with a family physician was also noted as he/she can "hold the key" to navigating the larger system effectively.

A fourth emergent theme was that *recognition of the problem was an important first step* and that there were often years in between recognizing and dealing with their dual problems of substance use and mental health. Treatment for the two sets of problems would therefore begin at different times and quite separately. This failure to recognize the concurrent disorders was connected to several related issues including the common experience of *misdiagnosis* due to the interacting and often masking effects of the substance use, and the *lack of education and training* among professionals they encountered along the way. This was compounded by a fear that if you "reveal too much" this can prevent you from receiving treatment or be more likely to lose support, children and family connections.

> *One of the biggest problems that I ran into was the issue of misdiagnosis because you know active, addictive drug use or alcohol use, or anything else will parrot particular mental health disorders.*

Other major themes were the *difficulty getting into the system* and, once connected, the frustration in dealing with *poorly coordinated services.* Concerns about accessing the system ranged from there being inconsistent definitions of whom they would treat, to outright refusal to accept you if you had concurrent disorders. Others expressed frustration with the lack of basic information about what is out there for services and supports.

*When you ask for help, that's when you need it.**

When you do decide you do want to get help you just have to wait for so long; there should be enough people; and getting turned down and going to different places to try to get help. Some places you're not bad enough for and too bad for others.

There should be one centre of information so that there is no confusion as to where to look, even if it's small enough just to send people in the right direction.

Yeah there isn't just one place - its almost as if the left doesn't know what the right is doing.

The concerns about lack of cooperation and coordination among service providers were even more revealing about the difficulties encountered navigating the system. In particular it was seen as difficult to build a trusting relationship with a service provider if you do not see them on a continuous basis.

I don't find that there is good communication between, like even when you sign a release form I don't find he's getting the information or they are relaying it. So there's a real emptiness there, and you end up providing the same information or lets say getting tests done at a whole bunch of different places – it could be done once.

I've gotten help for each individual thing but to get help for, like at the same time, you fall between the cracks and if one of your disorders is worse than another and then one doctor thinks your seeing somebody else, basically nobody's helping you, nobody follows up, you kind of disappear in there.

Basically a coordination of services, a central place, a person, that's what's missing.

This admission, that admission, this specialist, that specialist but nobody's really doing anything, nothing's really getting done, just a whole bunch of appointments going nowhere.

Finally, participants voiced their concerns about the lack of resources. They commented in particular on the poor access to counselors, especially in rural areas, as well as the need for more treatment programs and groups specifically for individuals with concurrent disorders. Those who were involved in a specialized concurrent disorders program were very supportive of their program and spoke positively about their experience.

* Translated from: "Quand on demande de l'aide, c'est là qu'on en a besoin".

4.2.2 System Implications

The following implications are drawn from the experiences discussed during the focus groups:

- screening for concurrent disorders, followed by comprehensive diagnostic assessment should be viewed as critical components of local mental health and substance abuse systems;

- there must also be an openness to deal with both the mental health and substance use problems regardless of the doorway into the system the person has entered. There must be an emphasis on engaging the person in a non-stigmatizing, trustworthy environment and accepting the person where they are at in terms of the degree of program or system integration they feel comfortable with at that point in time;

- there is a need to reduce waiting times and for better access to information about what services and supports are available in the community. This could include better sharing of information among the service providers in the community as well as more centralized information services (e.g., 1-800 lines; web sites);

- there is a need for good linkages across services and, in general, improved coordination. Continuity of the caregiver is critical to the provision of needed supports. Continuity also helps develop the kind of trusting relationship which may be necessary for full disclosure of the nature and severity of the substance use and mental health problems. Assessment, therefore, must be seen as an ongoing rather than a one-off aspect of service provision;

- the psychosocial needs of people with concurrent disorders, particularly co-occurring severe and persistent mental illness, are significant. Issues such as housing, childcare and money for transportation can seriously disrupt the best of intentions for dealing with substance use or other aspects of the co-morbidity. Support for these needs, particularly through community outreach, must also be a critical component of local service delivery systems;

- there is a critical need for better training of mental health professionals in substance abuse and of substance abuse professionals in mental health. The family physician can also play a key role in helping the person navigate the local network of services and needs to be well informed and trained to do so;

- the planning of services/supports, and systems of services/supports, for people with concurrent disorders must involve people who have experienced these problems directly as well as their family members.

4.3 Service Provider and Planner Perspectives

After developing a draft of the best practice recommendations at the service delivery level, feedback was sought from a number of administrators, program managers, staff, planners and policy makers across Canada on the implications for both the program and system levels. A total of 39 potential respondents were identified. The survey was not intended to be scientifically representative. A regional balance was sought across Canada as well as a balance across mental health and substance abuse programs. A small number of participants were working in integrated concurrent disorders programs identified through the "National Program Inventory - Concurrent Mental Health and Substance Use Disorders" (published separately).

The survey questionnaire was sent by e-mail or fax with the option provided to either complete and return by e-mail, by fax or to answer the questions in a telephone interview. A total of 19 people responded. Since some people chose to respond anonymously, there is not a final regional distribution of those who responded. The breakdown across mental health and addictions was as follows: seven from a mental health service; eight from a substance abuse service; two from an integrated concurrent disorders program, and two in the "other" category (community program consultant; funder/planner).

A copy of the survey questionnaire is available.* The general flow of the questions was to inquire about (a) how reasonable the recommendation was (e.g., universal screening for mental health problems in substance abuse services); (b) how far off the recommendation was from current practice; and (c) what it would take to achieve the goal set by the recommendation. These questions were asked first with respect to their agency, if they were a direct service provider, and then with respect to their network or system of services.** Questions covered the draft recommendations for screening, comprehensive assessment, and program- and system-level integration. Other items asked for feedback on the classification system for sub-grouping within the larger category of 'concurrent disorders'. A final question sought any other feedback felt to be appropriate and helpful to the goals of the project.

In this section a brief summary of the feedback on the service delivery recommendations and their implications at the system level is provided. There was a high degree of support for the classification system proposed in Section 2.2.6. Sixteen respondents were favourable. Two others gave more qualified support commenting, for example, on the potential need for something different to subgroup adolescents. The remaining respondent thought the groups would not match well to the current program structure of their facility, and that different groupings may be needed for different sub-populations (e.g., youth, geriatric, referrals from corrections).

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** 'System' was self-defined as the level most appropriate for the respondent (i.e., local, regional, provincial/territorial).

Screening

Of the 19 respondents, 12 felt that the recommendation for universal screening for substance use and mental health disorders was reasonable; five were supportive but cited additional caveats, such as the need for agreed upon tools, resources and training. Two people thought the goal was not reasonable. When asked to comment on how far off this recommendation was in terms of current practice, the responses covered the full spectrum: "not doing anything like this in a formal fashion" (n= 4); preliminary integration that would eventually lead to agreed upon screening protocols (n= 6); some screening activities currently underway (n=5). Within one jurisdiction the mental health system was said to be further ahead than the substance abuse system in terms of screening; in another jurisdiction the opposite was said to be true. One respondent commented on the variability across the regions of their province, with the level of screening activity reflecting the degree of local/regional coordination.

In terms of what it would take to implement a recommendation for system-wide screening for substance use and mental health disorders, the most common response was training, including cross-training and commitment of training resources (n =8). Five people commented on the need for "top down" support and commitment, including the political will to make it happen and monitor compliance. The need for better coordination and communication across the dual mental health and substance abuse systems was mentioned by three people, including the need for incentives to form partnerships. The need for more resources to implement the recommendation was mentioned twice and one person noted the need for more services in general.

Assessment

Of the 19 respondents, 12 felt that the recommendation for comprehensive mental health and/or substance use assessment following positive results of a screening process was reasonable for their network of services. Four respondents gave a supportive but qualified response. They cited, for example, the difficulty accessing psychiatrists, if indeed the mental health diagnosis would only be considered acceptable if performed by a psychiatrist. One person felt that the goal may be reasonable locally but not at a larger systemic level. Two respondents felt their local substance abuse and mental health services were not sufficiently coordinated to make this a reasonable goal. One respondent was simply 'unsure' of the recommendation.

When asked to comment on the recommendation addressing comprehensive substance use and mental health assessment, a wide spectrum of responses was evident. Eight respondents felt this would be a long way off for their network, citing such challenges as the need for significant training and education in clinical assessment and the shortage of psychiatrists if they were required for mental health diagnosis. In addition, eight respondents felt they were partially there already and gave a variety of examples. Some felt they were closer in rural than in large urban centres with more complex systems. The opposite was thought to be true in other areas. One respondent noted the development of their integrated concurrent disorders program and in one area significant cross-training had begun. Two respondents noted the planning and coordination activities that had been initiated.

In terms of what it would take to implement a system-wide recommendation for comprehensive mental health and substance use assessment for those screened positive with concurrent disorders, a variety of closely related responses were offered. The most common response concerning the need for more staff resources (n=7) and more funding in general (n=4). Two people specifically mentioned the need for more involvement/direction from psychiatrists. The need for a strong commitment to the process was also cited (n=5), linked with more top-down guidance from funding authorities (n=2). This included a recommendation for mental health and substance abuse to be funded from the same envelope and the same regional governance mechanism. Five respondents cited the need for a better integrated system, such as better front-line linkage; multi-disciplinary teams; incentive for partnerships. Linkages were seen as critical in the assessment process. The need for training and education was mentioned by four respondents, as was the need for agreed upon assessment tools.

System-level Integration

There was a high level of support for making the program-level and system-level integration distinction and the specific definitions offered (14 out of 19 respondents). One person felt that true system-level integration required merging the systems of mental health and substance abuse at the policy, funding and government levels.

When asked how reasonable the goal was for system-level integration within their own particular network (local, regional or provincial), there was clearly more optimism than pessimism about the future. Thirteen of the 19 respondents felt it was reasonable but typically with a qualification or two added. Some spoke of current efforts underway at formal or informal coordination mechanisms; two people felt it was feasible but cautioned to start small and build on the successes; one person felt integration at the system level was a reasonable goal but not as preferable as integration at the program level; one person said it was a reasonable goal for some clients but not for all at this time; one person cited the need for considerable training and education. Only 3 of the 19 respondents felt it was not a reasonable goal; one person citing the difference across the two systems as being too wide to be bridged at the present time.

In answer to the question about how far off their own network of services was from a goal of system integration, only four of the 19 respondents felt they were a long way off. Specific comments indicated a willingness to integrate but concerns about the lack of structure to do so, or the distance in their region between the resource for comprehensive assessment and the resource for treatment. The more typical response reflected their current attempts at integration but considered themselves only part way there. Some comments highlighted local joint planning activities; efforts of front line staff; variation in integration across different locations; and the need for some additional resources, such as a psychiatrist. Other respondents simply said they were close, or that it was doable in a particular time frame (e.g., two years).

In terms of what it would take to achieve system-level integration for people with concurrent disorders, the most frequent responses (n=5) related to having more knowledgeable staff through training and education. This included comments about making progress towards

more shared philosophies and the kind of experiential learning that can come through cross-training or co-location. Four people commented on the need for more resources including a psychiatrist and trained staff dedicated to substance abuse issues. Other individual comments related to the need for a joint planning steering committee; finding ways to do business differently; and needing strong corporate commitment. Two people noted the need for regulations or other compliance incentives. Finally, two people noted the value of these best practice guidelines themselves as an effective tool for training workshops and planning activities.

Other comments and suggestions: Several other comments were offered by the key informants which are relevant to this section on system-level integration. Relevant comments included:

- a major systemic barrier is the different educational base for substance abuse and mental health workers;
- from the client's perspective a program integrated with mental health may not be perceived positively given the stigma associated with mental health in general;
- guidelines need to articulate best practices without necessarily tying them to a structure. Without new funding sources or multiple mergers across the province it is not realistic to expect staff to be under one organizational structure even if this were the best model;
- transportation for consumers is an issue especially in rural areas;
- availability of support/self-help groups is a challenge. The group "Dual Recovery Anonymous" is a 12 - step organization with a website and chatroom. Providing training on the web and access to this web site is an option in rural communities;
- this client group requires multiple opportunities to be engaged in settings that match their needs. Traditional 12-step programs are too large, too long and frequently too entrenched in their traditions to accommodate people who need medication;
- telepsychiatry is an education and training model that can be extended to rural areas.

4.4 Mechanisms and Models for System-level Integration for Concurrent Disorders

In an earlier section system-level integration was defined as:

> *The development of enduring linkages between service providers or treatment units within a system, or across multiple systems, to facilitate the provision of services to individuals at the local level. Mental health treatment and substance abuse treatment are, therefore, brought together by two or more clinicians/support workers working for different treatment units or service providers. Various coordination and collaborative arrangements are used to develop and implement an integrated treatment plan (adapted from*[71]*).*

As with program-level integration, this treatment plan may involve addressing the substance use and mental health disorders either concurrently or sequentially, but always in the context of a consistent and coordinated approach tailored to the unique needs and capacities of the individual.

Also as noted earlier, models for system integration have been much less frequently evaluated with respect to consumer outcomes and service delivery costs than is the case with program-level integration. Indeed there is virtually no such research specific to concurrent disorders. Further there is little documented experience from which to draw practice wisdom. This section will outline alternative mechanisms and models that seek to better integrate services and supports for people with concurrent disorders, recognizing that there must be more description than prescription, and draws from:

- an important evaluation study that examined the effectiveness of different strategies to develop systems of care for people with severe mental illness[353,354] and recent research investigating the effectiveness of various system integration strategies for improving outcomes for people who are homeless;[71,355]

- seminal studies in the U.S. that identified systemic barriers to effective service delivery for people with concurrent disorders;[27, 356]

- key summaries of system-level barriers and potential solutions [24,357] including more recently published work that describes various integration mechanisms at the local level in the U.S.,[70,155] and which outlines a collaborative strategy to improve linkages at the state-level;[72]

- the most recent work of Mueser and colleagues[44] which also makes the distinction between program- and system-level integration and which discusses some organizational strategies for developing capacity for integrated services. Many of these strategies are also relevant at the system level;

- reports from Canadian studies outlining key elements of best practice at the system level for mental health reform[11] or which discuss alternative strategies to better coordinate substance abuse services;[12]

- recommended practice and lessons learned in various initiatives involving organizational or system-level change processes;

- the results of the various components of this project aimed at identifying system-level challenges and potential solutions, i.e., the consumer focus groups, the "National Program Inventory - Concurrent Mental Health and Substance Use Disorders" (published separately), and the key informant survey.

4.4.1 What the Literature Tells Us About the Effectiveness of Coordination

In the Robert Woods Johnson Program on Chronic Mental Illness,[353,354] nine cities throughout the United States were funded to develop community-wide systems of care for people with chronic mental illness.* Each city was expected to create a public mental health authority that would improve continuity of care, move funds to needed areas, develop a range of housing options and enhance the range of rehabilitation services available. The evaluation found that authorities could be successfully established, increasing centralization, coordination and continuity of care. However, consumer outcomes did not improve. This finding may reflect methodological limitations linking system-level changes to consumer outcomes. Or it could mean that structural changes do not obviate the need for funding high quality programs and services.

Another large scale project in the United States sought to demonstrate the effectiveness of different services to people who were homeless as well as outcomes associated with various system integration strategies. Strategies included, for example, an interagency coordinating body; co-location of services; system integration coordinator; interagency agreements and/or service delivery teams; and interagency MIS tracking systems. In those study sites funded specifically to implement system integration, the evaluation focused on (a) whether implementation of these strategies leads to improvements in system integration; and (b) whether system integration leads to better outcomes for the study population. The investigators found that many system integration strategies were implemented and that system integration was achieved at the project level. However, few differences were observed at the consumer level; a notable exception being housing outcomes which increased as the level of integration increased. The study is also important as an example of how the implementation of system-level integration strategies can be defined and monitored over time.[355]

More research is clearly needed on the effectiveness of system-level integration on consumer outcomes. These studies are difficult to mount and the results are open to many interpretations. Evaluation studies are needed which examine variation in system integration across several sites. In addition smaller scale evaluation studies are also needed which focus on process issues in planning and implementing many of the system-level integration strategies examined in these larger studies.

* This summary is abstracted from the best practice report for mental health reform.[11]

Finally it should be noted that what little literature does exist on system integration strategies for concurrent disorders is not particularly relevant to rural and remote areas with significant issues related to distance/travel and chronic shortages of psychiatrists, psychologists and registered social workers to make diagnoses. Family physicians are also in short supply in many areas. Systems research in these areas is particularly needed.

4.4.2 Barriers to Integration and Potential Solutions

With respect to people with concurrent disorders specifically, the focus here is more on identifying potential solutions than identifying well-known systemic barriers identified in the literature.[27] However, it is worth noting that despite the considerable areas of rapprochement across the two systems of mental health and substance abuse, many of the commonly identified challenges to better integration were reinforced in the focus groups and key informant survey. Examples would include:

- historical differences in alliance with the medical model and differences in the educational and experiential requirements to work in the two fields;
- low tolerance that still exists in some substance abuse programs for any psychoactive medication;
- lack of acceptance of harm reduction approaches in some substance abuse services and which may be necessary for effective engagement of this population in the care and support system;
- use of confrontational techniques that are too stress inducing or otherwise inappropriate with people with some combinations of concurrent disorders (e.g. substance use and severe and persistent mental illness);
- different policy, planning, funding and governance streams.

A technical assistance report from the U.S. on the coordination of substance abuse and mental health services[357] was the first comprehensive attempt to outline potential solutions to the long standing barriers to systemic integration across substance abuse and mental health. They summarized several working principles for those attempting to coordinate services across these dual systems. Examples include:

- services coordination is usually a slow, evolutionary process;
- successful coordination depends on leadership and talents of responsible people;
- service providers' perception of the benefits of services coordination is crucial;
- effective coordination of services requires shared information systems;
- a common government strategy facilitates services coordination;
- formal inter-organizational agreements facilitate the coordination process;

- being responsible to a common super-ordinate authority facilitates coordination;
- efforts to develop the sharing of ideology that supports coordination appear worthwhile;
- relevant training and continuing education are necessary for staff as well as their supervisors.

This report also included a description of specific coordination mechanisms and models, including co-location; information and referral; centralized intake and referral; inter-agency networks such as multi-disciplinary teams; case management; sharing of staff; financing models and training and education. This list was subsequently expanded upon in the Treatment Improvement Protocol (TIP) for concurrent disorders,[24] including, for example, shared data systems; and linkages with the wider health, social, and correctional service system.

Mueser and colleagues[44] summarize two general strategies for program-level integration, namely adding substance abuse specialists to mental health services (or vice versa),* and creating blended teams. These strategies, however, can also work at the system level through the development of inter-agency service teams. Further, the organizational factors that would facilitate or inhibit the development of program integration are also relevant at the system level. Their list of factors includes:

- leadership, including an internal champion and a monitoring mechanism;
- defining the target population (e.g. homeless);
- infrastructure, including dedicated staff, clinical tools, processes for developing specific competencies and quality improvement;
- training and supervision, which should be viewed as the centerpiece of a system of services for people with concurrent disorders. Cross-training is a viable option;
- screening and assessment protocols with appropriate inter-agency linkages and verified through some form of utilization review;
- an array of services including a foundation of mental health and substance abuse services and specialized concurrent disorders services;
- self-help liaison, for example, Double Trouble groups;
- levels of care with appropriate linkages, for example, between inpatient services for stabilization and outpatient services for longer term care and support;

* They note that since most people with concurrent disorders receive their primary treatment in mental health services that the most common strategy has been to add substance abuse specialists to these services. This is less true for subgroups other than those with severe mental illness (Group 2).

- program monitoring, including quality review procedures, process evaluation and outcome monitoring. This also includes the regular use of a fidelity scale for assessing the degree of integration*; and

- the close involvement of consumers and family members in program design and implementation.

Some of the factors noted by Mueser and colleagues[44] reflect more general strategies in the literature on organizational and system change processes. Examples would include the need for a strong champion or opinion leader;[358] developing motivation for change across the organization/system;[359] and meaningful involvement of key stakeholders, including service recipients and their families.[360] Other factors reflect comments made in the focus groups and the key informant survey (e.g., the need for leadership and commitment).

Some of the organization/system factors noted by Mueser and colleagues[44] also reflect the best practice recommendations for implementation of mental health reform in Canada[11] and substance abuse treatment[12] (e.g., the need for a service continuum). Thus, it is likely that many of the recommendations for improved service coordination within each of the mental health and substance abuse systems will also be worthwhile exploring to improve coordination across the two systems. Examples may include:

- supportive and widely supported policy. This includes policy that supports both service development and integration activities;

- a clear point of responsibility for planning integration activities and funding;

- training plan which is part of a larger human resources strategy;

- the need for evaluation and monitoring of integration activities and expected outcomes. Measures of improved coordination can include, for example, mutual awareness, frequency of interaction, frequency and direction of referrals and information exchange, formalization of agreements.

4.4.3 A Shopping List of Alternatives to Support System Integration

In synthesizing the information and themes, the following list of alternative strategies may support system-level integration:

- it is critical that people with concurrent disorders and their family members be meaningfully involved in planning and system development activities;

- given the pace of knowledge development and the extent to which innovative solutions are being explored there is a need for a mechanism to share information and lessons learned. A possible vehicle to achieve this would be a Canadian-based web site and potentially a national Concurrent Disorders Resource Centre that would support research dissemination and knowledge transfer;

* An integration fidelity scale that can be adapted to different situations is included in Appendix I.

- training and education must be the centrepiece of concurrent disorders program and system development. This includes cross-training, continuing education, and formal curricula development and credentialing;

- a healthy mix of top-down commitment from funders, senior administrators and Executive Directors and bottom-up exploration of linkages by front-line staff based on individual cases;

- developing a joint inter-agency planning committee is a viable option to start the local system integration process with reasonable goals and time frames in order to maximize the chance of success and build motivation to continue the change process. There may be considerable value to a staged approach starting, for example, with informal coordination activities and information sharing; to perhaps a cross-training program and then to service agreements for assessment and treatment/support. It is important that there be a dedicated resource person to support the planning and development process. It is also important to recognize that, due to the complexity of integration across systems, the change process must be seen as evolutionary, non-linear and requiring time and patience;

- there is a need for clinical case consultation, including a potential role for telepsychiatry to program and system integration in rural and remote areas;

- shared data systems that cross mental health and substance abuse systems should be explored and pilot tested;

- widespread adoption of blended service delivery teams such as the Assertive Community Treatment teams which include a substance abuse counselor;

- formal inter-agency partnerships can be developed which go beyond joint planning exercises to the level of service agreements or potentially merged organizations;

- central access models are often recommended in both mental health and substance abuse reform processes. There is likely value in developing improved access models, including basic information about services and supports that are available, which span substance abuse and mental health;

- policy initiatives can be undertaken at the funding level which would support integrated services and systems, and provide a mechanism for demonstration projects.

5.0 Implications for Research

The following are the research recommendations:

- there is wide variation in the level and content of integrated treatment at the program level. More research is needed on the effectiveness and cost-effectiveness of various interventions for many of the sub-groups within the concurrent disorders population, as well as fidelity measures to assess the nature and level of integration;

- there is wide variation in the level and content of integrated treatment at the system level. More research is needed on the impact of these system-level interventions on access to treatment and support; engagement and retention in the system and the effectiveness and cost-effectiveness of various interventions for each of the sub-groups within the concurrent disorders population. Research should also investigate the value of fidelity measures to assess the nature and level of system integration; and urban/rural differences;

- two clusters of concurrent disorders were omitted from these of best practice guidelines due to a lack of research evidence – concurrent substance use and sexual disorders; and concurrent substance use, mental health disorders and pathological gambling. More research is needed in these areas;

- more research is needed on treatment/support for specific combinations of psychoactive substance use disorders (e.g., cocaine) and specific mental health disorders (e.g., depression);

- more research is needed on the link between substance use disorder and anger disorders that are independent of antisocial personality disorder;

- more research is needed on the link among dysfunctional parenting, child abuse and co-occurring mental health and substance use disorders;

- brief, validated measures are needed that would screen for mental health disorders among people seeking treatment for substance use disorders.

Appendices

Appendix A
Key Reference Materials

Addiction Research Foundation. (undated). *Concurrent Disorders Annotated Bibliography*. Available from library at the Centre for Addiction and Mental Health Toronto, Ontario.

Blanchard, J.J. (2000). The co-occurence of substance use in other mental health disorders: Editor's introduction. *Clinical Psychology Review*, 20(2), 145-148.

Carey, K.B., & Correia, C.J. (1998). Severe Mental Illness and Addictions: Assessment Considerations. *Addictive Behaviors*, 23(6), 735-748.

Daley, D.C., Moss, H.B., & Campbell, F. (1993). *Dual Disorders Counselling Clients with Chemical Dependency and Mental Illness* (Second Edition). Center City, Minnesota: 55012-0176: Hazelton Foundation.

Drake, R.E., Mercer-McFadden, C., McHugo, G.J., Mueser, K.T., Rosenberg, S.D., Clark, R.E., & Brunette, M.F. (Eds.) (1998). *Readings in Dual Diagnosis*. Columbia, MD: International Association of Psychosocial Rehabilitation Services.

Drake, R.E., Mercer-McFadden, C., Mueser, K.T., McHugo, G.J., & Bond, G.R. (1998). Review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin*, 24 (4), 589-608.

Drake, R.E., & Mueser, K. (2000). Dual diagnosis: 15 years of progress. *Psychiatric Services*, 51(9), 1126-1129.

Drake, R.E., & Mueser, K. (2000). Psychosocial approaches to dual diagnosis. *Schizophrenia Bulletin*, 26(1), 105-118.

Health Canada. (1999). *Best Practices Substance Abuse Treatment and Rehabilitation*. Ottawa: Minister of Public Works and Government Services, Cat. #H39-438/1998E

Health Systems Research Unit. (1997). *Review of Best Practices in Mental Health Reform*. Toronto: Clarke Institute of Psychiatry.

Hood, C., Maugham, C., McGuire, D., & Leigh, G. (1996). *Exploring the links between substance use and mental health* [vol.1] A Discussion Paper and A Round Table. Ottawa: Health Canada, Cat. # H39-360/1-1996E

Mueser, K.T., Drake, R.E., & Wallach, M.A. (1998). Dual diagnosis: A review of etiological theories. *Addictive Behaviors*, 24(6), 717-734.

Mueser, K.T., Noordsy, D.L., Drake, R.E., & Fox, L. (in press). *Integrated Treatment for Dual Disorders: Effective Intervention for Severe Mental Illness and Substance Abuse*. New York: Guilford Press.

RachBeisel, J., Scott, J., & Dixon, L. (1999). Co-Occurring severe mental illness and substance use disorders: A Review of Recent Research. *Psychiatric Services*, 50(11), 1427-1434.

Ries, R. (1994). (consensus panel chair). *Assessment and treatment of patients with coexisting mental illness and alcohol and other drug abuse, Treatment Improvement Protocol (TIP)* Series Rockville, MD: Centre for Substance Abuse Treatment. DHHS Publication No. (SMA) 94-2078 (http:/www.health.org/pubs/catalog/ordering.htm).

Ries, R. (1993). Clinical treatment matching models for dually diagnosed patients. *Recent Advances in Addictive Disorders*, 16(1), 167-175.

Rosenthal, R., & Westreich, L. (1999). Treatment of persons with dual disorders of substance use disorder and other psychological problems. In B.S. McCrady & E.E. Epstein (Eds.), *Addictions: A Comprehensive Guidebook*. New York: Oxford University Press, pp. 439-475.

Ryglewicz, H., & Pepper, B. (1996). *Lives at Risk Understanding and Treating Young People with Dual Disorders.* New York: The Fress Press, 72-96.

Appendix B*
DSM-IV Criteria for Substance Use Disorders and Substance-Induced Disorders

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Substance Use Disorders

Substance Dependence

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

1. tolerance, as defined by either of the following:
   a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect.
   b) markedly diminished effect with continued use of the same amount of the substance.
2. withdrawal, as manifested by either of the following:
   a) the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for withdrawal from the specific substances)
   b) the same (or a closely related) substance is taken to relieve or avoid symptoms.
3. the substance is often taken in larger amounts or over a longer period than was intended.
4. there is a persistent desire or unsuccessful efforts to cut down or control substance use.
5. a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance, or recover from its effects.
6. important social, occupational, or recreational activities are given up or reduced because of substance use.
7. the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).

Specify if:

With Physiological Dependence: evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present)

Without Physiological Dependence: no evidence of tolerance or withdrawal (i.e., neither Item 1 nor 2 is present)

Substance Abuse

A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

   1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)

   2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)

   3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)

   4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)

B. The symptoms have never met the criteria for Substance Dependence for this class of substance.

Substance-Induced Disorders

Substance Intoxication

A. The development of a reversible substance-specific syndrome due to recent ingestion of (or exposure to) a substance. Note: Different substances may produce similar or identical syndromes.

B. Clinically significant maladaptive behavioral or psychological changes that are due to the effect of the substance on the central nervous system (e.g., belligerence, mood lability, cognitive impairment, impaired judgement, impaired social or occupational functioning) and develop during or shortly after use of the substance.

C. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Substance Withdrawal

A. The development of a substance-specific syndrome due to the cessation of (or reduction in) substance use that has been heavy and prolonged.

B. The substance-specific syndrome causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The symptoms are not due to a general medical condition and are not better accounted for by another mental disorder.

Appendix C
Classification Scheme from Ryglewicz and Pepper[34]

Group 1:

A major mental illness and a major problem with alcohol and/or drug abuse, dependence or addiction. An example given was a woman with diagnosed bipolar illness and alcohol dependence.

Group 2:

A major mental illness and a special vulnerability to the effects of alcohol and other drugs. An example given was a young man with schizophrenia who was abusing but not dependent on alcohol and other drugs.

Group 3:

Personality disorder and/or mental/emotional problems that are complicated and aggravated by alcohol and/or street drug use or abuse, but no major mental illness that in itself would produce psychotic episodes or require hospitalization. An example given was a woman with an Axis I disorder of post-traumatic stress disorder, bulimia and substance dependent on cannabis and cocaine but in partial remission.

Group 4:

Diagnosed or identified alcohol/drug abuse, dependence or addiction, plus personality disorder or other mental/emotional/cognitive problems that are masked by the substance use and which may increase during withdrawal. An example given was a man in substance abuse treatment but who finds it difficult to participate due to a personality disorder as reflected in his intolerance for the group activities, lack of acceptance of others, and too easily threatened by any confrontation.

Appendix D
Brief Description of the Mental Health and Substance Abuse Treatment Systems in Canada

Mental Health Service Delivery System*

With few exceptions,** the funding, planning, delivery and evaluation of mental health services in Canada falls within the provincial mandate for health services generally. Community mental health programs, provincial psychiatric hospital services (PPHs), general hospital psychiatric unit services (GHPUS), and physician services for mental health conditions are all publicly funded in Canada. The preferred model of mental health service delivery advocates for a range of community services operating in conjunction with GHPUS and a regional tertiary care centre. Approaches to achieving this systems model differ in rural and northern areas where scarcity of resources and small populations dictate multiple professional and program roles.

Virtually all the provinces and territories have undergone recent efforts to reform their mental health system. Consistent with best practice at the systems level[11] there is a broad consensus on the "continuum of care" perspective. This perspective calls for a *range* of community services that match the diverse needs of people with mental health problems. The provinces and territories are also similar with respect to the target population given the most priority; that being people with severe mental illness as opposed to those with more moderate mental health problems. This priority reflects the needs of the more severely disabled population, the large majority of whom are now living in the community with marginal resources.

Within most regions of the country the system of mental health services is comprised of various types of community mental health services for both consumers and family members; consumer-run organizations and family support groups, individual practitioners, including psychiatrists, physicians, psychologists, social workers, and other types of clinicians and therapists, and acute care inpatient facilities.

Availability of the many different types of community mental health services varies from region to region within the provinces and territories. Key elements include case management, crisis response, housing, clubhouses, as well as vocational/educational/employment supports.[11] Case management programs are viewed as critical and, in Canada, are either *intensive*, attempting to directly provide a comprehensive, continuous treatment and rehabilitation program, or *generic*, being less intensive, less specialized and less comprehensive. Several provinces have recently funded one type of intensive case management, Assertive Community Treatment teams (ACT), as a key component of mental health reform. These programs are targeted primarily at the group of people with severe mental illness coming out of psychiatric institutions to live in the community.[291] Crisis

* Much of the this section has been abstracted from Goering et al.[361]

** Most notably mental health services for Aboriginal people, those in the federal corrections system and the military.

response systems can include many types of interventions ranging from phone lines, walk-in clinics, mobile crisis teams, free-standing crisis centres, hospital emergency departments with holding beds to inpatient psychiatric units.

To complement the growth of the community mental health sector generally, the last two decades have also seen dramatic changes in perceptions about the capabilities of consumers themselves, and related components of community support. This derives, in part, from the emergence of the consumer and psychiatric survivor movement in Canada, the U.S. and other parts of the world in the post-deinstitutionalization era.[362] The Canadian Mental Health Association - National (CMHA), a non-governmental, non-profit organization, has been a leading force in altering views across Canada about consumer capacities and necessary elements of a system of care. Its major policy document, *A New Framework for Support for People With Severe Mental Disabilities*[2] insists upon the inclusion of all stakeholders and sectors in planning and providing mental health care and support. The framework replaces the past undue emphasis upon professional services and gives greater attention to natural supports, self-help and access to basic needs (e.g., housing, income, work). It also explicitly recognizes the value of experiential knowledge. The framework has stimulated considerable policy and program development across Canada. While provinces vary in their accomplishments, there has been steady progress in developing linkages between mental health and generic community supports; increased involvement of consumers and families in service design and delivery; and increased support for consumer and family organizations. Some provinces/territories are now in the process of merging their mental health and substance abuse systems.

The largest proportion of primary mental health care in Canada is delivered by general practitioners (GPs) working alone, in groups, or in conjunction with specialists; including psychiatrists, psychologists, social workers and occupational therapists. All general practitioner and psychiatrist services, including mental health services, are fully insured by publicly funded, single payer, provincial health insurance plans. These plans do not usually cover services provided by other mental health professionals. A recent Ontario study on the utilization of GP and psychiatrist mental health care[363] is likely indicative of practice across the country. In 1992/93, three quarters of users of mental health services in Ontario received care from GPs compared with about 9% of users who received care from GPs and psychiatrists together, and only 10% who received services from psychiatrists alone. There is increasing interest in Canada in developing models of shared care between GPs and psychiatrists to enhance the capacity of the primary mental health care sector.[364] Stronger, more direct working relationships between these providers are expected to result in better coordinated and more economical care.

Provincial psychiatric hospitals (PPHs) are among the services that have been funded directly by the mental health departments/divisions of the provincial governments. Recently, as newer administrative models such as regionalization have evolved, PPHs have either been devolved from direct government administration to autonomous incorporation, or have been placed under the aegis of regional health boards. The PPH's have been the main provider of long-stay mental health beds for people with severe and persistent mental illness. However, a consistent part of mental health reform in all provinces has involved bed reductions in these

large institutions. There has been a corresponding increase in the role of general hospital psychiatric units (GHPUS) in providing acute care and crisis response. These units are funded through general hospital global budgets. Mandated GHPU services in most provinces include inpatient care, outpatient care, day care, emergency care and consultation.[365,371] The role of PPHs with regard to inpatient care is increasingly in the area of tertiary care; that is they will provide specialized treatment and rehabilitation services for individuals whose needs for care are too complex to be managed in the community.

There is a close and complex relationship between the mental health system and the criminal justice system in Canada. Based on a major survey of over 2000 inmates, the prevalence of mental health disorders and concurrent disorders is high in Federal Canadian prisons.[366] For example, the risk of having had at least one episode of a psychotic illness was 10.4% and the incidence of depressive disorders was 29.8%. The lifetime prevalence rate of antisocial personality disorder was 74.9% using stringent diagnostic criteria. As many as 89% of the total inmate population had a profile of lifetime prevalence of antisocial personality or substance abuse/dependence. It is acknowledged in the correctional system that current approaches generally fail to provide for the special needs of those with concurrent disorders in jails and prisons. There are varying abilities and inclinations to develop treatment models for this population. Some obstacles are resource based. Further impediments are based on critical mass for programming given that the forensic population in need of intervention for concurrent disorders is not homogenous. Nevertheless, there is clearly a need within the correctional environment to further train mental health professionals in the assessment of substance abuse and to incorporate mental health issues into substance abuse treatment. In the Canadian federal correctional system one approach is to have a treatment component or module regarding substance abuse within a mental health treatment program. However, there is no integrated approach. Conversely, there is no component that specifically addresses mental illness within the substance abuse treatment programs offered either in the institutions or to offenders in the community.

The Substance Abuse Treatment System*

The emergence of the formal drug and alcohol treatment system in Canada and most parts of the developed world was associated with a shift from a moralistic to a health-oriented perspective.[368,373] Although medical practitioners, and to a lesser extent psychiatrists, played a major role in formal treatment programs, it was the people in recovery from a substance use disorder who had a dominant role in both delivering services in the community, and through self-help programs such as Alcoholics Anonymous. Since the 1960's and 70's there has been a process of professionalization of the field and the widespread adoption of a broad biopsychosocial model of addiction. Over this same time period the dominance of the medical profession, and most definitely the psychiatric profession, has diminished in most provinces.** In contrast, the mental health field has been more heavily dominated by a

* Abstracted in part from Roberts and Ogborne,[367] Rush and Ogborne[368] and Ogsborne et al.[369]

** This is not to say the medical and psychiatric profession does not continue to play a very important role. These professionals, however, do not dominate substance abuse related planning or policy initiatives or direct service delivery in most provinces and territories.

medical model, and while there has been general acceptance of a broader psychosocial rehabilitation approach and community mental health services, the psychiatric profession remains more closely tied to day-to-day care through the need for formal psychiatric evaluation to establish diagnosis, and the prescription of medication for symptom management.

Like mental health, most treatment for substance use disorders is now funded directly by provincial and territorial governments, and indirectly by the federal government through transfer payments. The federal government provides direct funding for substance abuse treatment and rehabilitation services to some specific groups. This includes on-reserve aboriginal people, members of the RCMP and the armed forces, and those in the federal corrections system. The federal government also sponsors two national programs that transfer money to the provinces/territories for substance abuse treatment mainly for women and youth, and people with disabilities. These programs require equal contributions from provincial and territorial governments. With the exception of Quebec, there are few specialized private programs that require their clients to pay for treatment.

Also like mental health, substance abuse services are not provided exclusively by specialized programs. For example management of withdrawal may take place in a general hospital ward; a specialized medical or non-medical withdrawal management centre, or through an outpatient or 'home-based' service arrangement. Counseling is provided by variously skilled human service providers based in schools, workplaces, community-based social services, hospitals, corrections agencies, as well as the specialized substance abuse treatment services. Many general practitioners also provide counseling and prescribe drugs such as naltrexone or disulfiram to treat alcohol use disorders. Increasingly general practitioners are also assuming responsibility for the prescription of methadone to people with opiate dependence. General practitioners are a key resource for counseling for substance use disorders in rural and remote areas where there may be few, if any, alternatives.

In addition to the services available through the wider health, social and correctional service systems, counseling and other treatment for substance use disorders are also provided by specialized programs on an outpatient, day/evening or residential basis. While these programs are sometimes freestanding, (i.e., accountable to their own Board), many are sponsored by community agencies or hospitals. In some provinces they are operated directly by government although this is now the exception rather than the rule. Correctional services, both federal and provincial, also provide substance abuse counseling and treatment to offenders on probation, those incarcerated and those released from incarceration. Across the country there is considerable variation in the availability and accessibility of different types of programs, and in the types of treatment provided. In some cases these variations reflect different local needs. However, the relationships between needs and local service arrangements are often less than optimal due to resource limitations, a lack of information for planning, or relatively uncritical enthusiasm for particular types of programs and services.

In general, treatment provided by specialized services is non-medical except in programs which provide general medical and psychiatric assessment and support as needed. It is more typical for programs to refer to outside medical and psychiatric services based on information

obtained during assessment. Some programs have medical staff who prescribe methadone to people with opiate dependence and anti-alcohol drugs to those with alcohol problems. There is increasing interest in the use of naltrexone in the treatment of alcohol use disorders.

Except for programs such as methadone maintenance, some treatment programs encourage complete abstinence from alcohol and other psychoactive drugs. This is especially the case among those programs where substance abuse is viewed as a disease. However, some programs are based on social learning models of alcohol and drug use and have harm reduction goals that do not require complete abstinence. Harm reduction goals typically focus on reducing the use of alcohol and other drugs to lower the risk of severe consequences (e.g., risk of HIV infection and hepatitis C from needle sharing), and to establish improvements in other life areas. It is also widely acknowledged that a significant percentage of people in treatment have been pressured to do so by sources such as family or their employer, or by more formal requirements of the courts or welfare system.[220] In a treatment system that operates with a high degree of such formal and informal social control, not all people in the system are highly motivated for making changes. Thus, there is increasing use of motivational interviewing, cognitive-behaviour therapy, and tailoring services to the client's stage of change. These methods are well supported in the research literature for substance use disorders[12] and for the treatment of many people with concurrent disorders.[35]

Many specialized treatment programs, and many substance abuse counselors in other settings, encourage clients to attend self-help supports such as Alcoholics Anonymous, Narcotics Anonymous or Cocaine Anonymous. These have a common 'disease model' perspective on substance abuse and advocate complete abstinence from alcohol and other drugs. Self-help groups are entirely self supporting and organized by people who are recovering from a substance use disorder. They encourage members to learn from the experience of others and to follow a 12-step program of recovery. The groups have meetings in all major cities and many rural communities. Given the manner in which these groups operate (e.g., strong adherence to the principle of anonymity) their effectiveness has not been researched as much as other types of support. While the self-help approach is not suited to all people seeking help (nor does it pretend to be), research does indicate that it has a clear role in conjunction with more formal services and supports in the treatment system.[226,370,371]

Self-help groups are a major resource for people with substance abuse problems and far more people attend these groups than seek help from specialized treatment programs.[82] However, the majority of people with alcohol or drug problems do not seek any kind of help for these problems.[372,373] Those who do use specialized services tend to have more serious problems, although the treatment seeking population is very heterogeneous. Some of those who seek treatment are heavily dependent on alcohol or other drugs, but others far less so. Some estimates would suggest that about 50% of the client population in some settings meet the DSM IV criteria for substance abuse but not dependence.[374] Thus, there is increasing support for harm reduction approaches and non-abstinence treatment goals tailored to the level of severity of the person's substance use and other circumstances.[375] While the levels and pattern of alcohol or drug use are highly variable within treatment seeking populations,

poly-drug use (including alcohol) is very common. Local variations in the availability of specific types of drugs and local ethno-cultural factors influence the types of problems presented to treatment services.

Many substance abuse treatment agencies have an open door policy, but include program components geared toward the needs of some specific subgroups (e.g., women, youth, people with HIV/AIDS or concurrent disorders). In other instances the whole agency may be targeted at a particular population (e.g., a women's withdrawal management centre; youth outpatient treatment agency). Such specialization is common but also highly variable within and between regions.

A major focus of efforts to improve substance abuse treatment services has been on the development of a continuum of services – withdrawal management, brief intervention, comprehensive assessment, more intensive outpatient or day treatment, short or longer term residential, continuing care. There is also a considerable interest in early identification and intervention. The development of effective case management arrangements has also been a prominent concern. There is a high interest in developing and implementing more standardized assessment protocols and placement criteria that would aim for more optimal use of the available resources, for example, through referral of people with the most severe problems to the most intensive treatment settings.[376] However, unlike the managed care system in the U.S. which controls access to treatment with the placement criteria recommended by the American Society of Addiction Medicine,[22] such placement criteria currently operate here in Canada on a more voluntary basis.

Appendix E
Terms for Substance Abuse and Mental Health Screening

1. The *sensitivity* of a screening tool refers to its ability to detect the condition or health concern that it is intended to detect.[377] A highly sensitive tool for mental health or substance abuse will, therefore, not miss too many people who have either a mental health or substance use disorder as determined by a subsequent diagnostic assessment.

2. The *specificity* of a screening tool refers to its ability to avoid saying that someone may have the problem or health concern when in fact they do not.[377] A highly specific tool for mental health or substance abuse will, therefore, not identify too many people as possibly having either a mental health or substance use disorder only to have this ruled out by subsequent diagnostic assessment.

3. While the goal is usually to develop screening tools that are high in both sensitivity and specificity, one may lean toward high sensitivity and use later assessment to rule out the false positives. If, however, subsequent assessment of many false positives is seen as inappropriate (e.g., too expensive) one would lean toward higher specificity. Normally, one tries to strike a balance.

4. Sensitivity and specificity, however, tell only part of the story about the operating characteristics of a screening tool. It is also important to determine the predictive value of a screening tool.[377] Positive predictive value refers to the probability of being positive on the criterion measure, if one is identified as at risk with the screening tool; negative predictive value refers to the probability of being negative on the criterion measure if one is identified as not at risk with the screening tool. This means that a tool which has a certain level of sensitivity and specificity will actually perform better or worse when used in settings that differ substantially in the prevalence of the condition or health concern being detected. Thus, a substance abuse screening tool can have a higher predictive value when used, for example, in a setting providing services to the homeless with a very high percentage of people with substance use disorders, compared to an early intervention program for schizophrenia where the percentage is not as high. Thus, a screening tool that works for one setting, or sub-population, may not be the best choice for another.

5. There is an important distinction between population screening, where everyone in the service would be given the screening questions or procedures, and strategic screening, whereby the questions or procedures are applied only for certain sub-groups already thought to be at higher risk. This is getting at the issue of predictive value mentioned above - the payoff will be higher when you use the screening tool with those subgroups with the highest prevalence of the problem. The choice between population or strategic screening is often a matter of the available resources, and the consequences of missing people who really should have been screened positive for further diagnostic assessment. The consequences of missing a substance abuse disorder can be very substantial for some mental health disorders such as schizophrenia or bipolar disorders.

Appendix F
Checklist of Common Consequence of Substance Abuse

Consequences	Examples
Housing instability	getting evicted from apartment, group home, family
Symptom relapses apparently unrelated to life stressors	increases in psychotic symptoms, worsening of depression, mania
Treatment noncompliance	failing to attend medication or other clinic appointment
Violent behaviour or threats of violence	getting into fights, throwing objects, cursing at others
Sudden, unexplained mood shifts	depression and hopelessness, anger, euphoria, anxiety, expansiveness
Suicidal ideation or attempts	thoughts or talk about hurting or killing oneself, contemplating death, thinking of plans to hurt oneself
Cognitive impairments	increased confusion, memory problems, difficulty planning ahead not related to a stress-induced symptom relapse
Difficulty budgeting funds	frequent attempts to borrow money, stealing money, pawning one's own or others' possessions
Prostitution	trading sex for money, food, clothing or drugs/alcohol
Social isolation	increased avoidance of others
Social difficulties	frequent arguments with family, friends
Employment difficulties	frequently tardy or absent, arguments with employer or other employees, having pay docked, job loss
Hygiene and health problems	deterioration in personal hygiene and grooming, medical problems, weight loss
Legal problems	arrests for disorderly conduct, drunken driving, possession of illicit drugs, shoplifting

Appendix G

Tools and Interventions for Working with People with Co-occurring Substance Abuse and Severe and Persistent Mental Illness (from Mueser et al., in press)[44]

Common Obstacles to Assessment and Solutions for Concurrent Substance Abuse and Severe Mental Illness

Obstacles	Solution
Failure to take a proper history	Ask client directly about substance use and its consequences, beginning with past use.
Denial and minimization	Expect denial and minimization and tap additional sources of information about clients' substance abuse.
Confusion about effects of substance use	Explore associations between substance use and course of psychiatric illness; if client uses substances, assume problems in functioning are at least partly related to substance use.
The primary-secondary mental illness substance use disorder distinction	View both substance abuse and mental illness as primary disorders.
Cognitive, psychotic, and mood related distortions	Be aware of possible distortions without ruling out all client self-reports; seek out other sources of information about client's substance abuse.
History of sanctions	Openly discuss the clinician's legal responsibilities, the client's concerns about legal issues, and control over the client's finances.
Pre-motivational state	Recognize that low motivation is common early in dual diagnosis treatment and seek to actively engage client.
Different norms for substance use disorder	Remember that client may experience adverse consequences to much lower amounts of alcohol and drug use than people with no psychiatric illness; the quality of substance use is less important than the consequences of use.

Potential Interventions at Different Stages of Treatment (continued from Mueser et al.[44])

	Stage of Treatment			
	Engagement	Persuasion	Active Treatment	Relapse Prevention
Case Management	X	X	X	X
Family Work	X	X	X	X
Pharmacologic Treatment	X	X	X	X
Assertive Outreach	X	X	X	
Coerced or Involuntary Interventions	X	X	X	
Residential Programs		X	X	
Motivational Interviewing		X	X	X
Persuasion Groups		X	X	
Cognitive-Behavioural Counseling		X	X	X
Social Skills Training		X	X	X
Vocational Rehabilitation		X	X	X
Active Treatment Groups			X	X
Self-help Groups			X	X

Appendix H
Topic List for Focus Groups

Focus Group Questions

1. I would like to start by asking each of you to tell us your name and what brought you here today.

2. Thinking about your experiences in either the addiction or mental health systems, once a person recognizes that they need help with a drug, alcohol or mental health problem, what types of problems do people usually face when they are getting the help they need?

   Probe:

   waiting list;

   no program for concurrent disorders;

   being bounced back and forth between the two systems;

   transportation issues;

   duplication of assessments.

3. How do you think people feel about (ask about problems mentioned above i.e. waiting list, etc.):

   Probe:

   frustrated;

   scared;

   angry;

   disappointed.

4. When receiving treatment for a mental health problem, how well do the service providers deal with substance use problems?

   Probe:

   Are questions asked about drinking habits or drug use?

   Why do you think questions about these issues are not asked?

   How are these questions asked?

   How up front are people about alcohol or drug use?

   What would stop people from revealing this information?

   What would help people to reveal this type of information?

5. When receiving treatment for an alcohol or drug problem, how well do the service providers deal with mental health problems such as depression, anxiety or stress?

   Probe:

   Are questions asked about mental health problems and diagnoses?

   Why do you think questions about these issues are not asked?

   How are these questions asked?

   How up front are people about mental health problems?

   What would stop people from revealing this information?

   What would help people to reveal this type of information?

6. When someone is dealing with a mental health, alcohol or drug problem, do you think that people in their support system know about both problems? By support system we mean, people such as family, friends, counselors or other important people.

   Probe:

   Do you think people in the support system understand both problems? (Why not?)

   Do people get the kind of support they need for both problems? (Why not?)

   What would stop someone from revealing both problems?

   What would help someone to reveal both problems?

7. Thinking about your experiences getting treatment and ongoing support, what has been the most helpful? What has been the least helpful and could have been done better?

8. We are trying to improve the treatment and support for people with both mental health and alcohol or drug use problems, what advice do you have for us?

Appendix I
Program Integration Fidelity Scale* (from Mueser et al., in press[44])

Dual Disorders Integrated Treatment Fidelity Scale

Instructions

This scale identifies 16 critical components of integrated dual disorder treatment. It is designed to identify the strengths and weaknesses of existing programs or systems of care. The scale can be completed based on a single treatment center or program, or across an array of programs and services within an entire system. The data used to complete the scale include interviews with clinicians and program managers, and reviews of clinical records.

The forms are divided into three parts: 1) anchored 5-point scales for each of the 16 treatment components; 2) definitions, sources of information, and probe questions for each component; and 3) a score sheet for summarizing the ratings.

High scores indicate better fidelity to the principles of integrated treatment. Total scores above 73 indicate high levels of fidelity, scores between 56 and 72 indicate moderate levels of fidelity, and scores 55 and below indicate low levels of fidelity.

* Definition and instructions for completion available from Mueser et al.[44]

Dual Disorders Integrated Treatment Fidelity Scale Ratings from 1 to 5					
	1	2	3	4	5
1. Integration of DD Clients	Substance abuse services and mental health services provided by different clinicians with monthly contact or less	Substance abuse services and mental health services provided by different clinicians with more than monthly contact	Within agency or team, some clinicians treat mental health problems and others treat substance abuse	Within agency or team some DD services provided by clinicians who treat both disorders, and others by clinicians who treat single disorder	DD services provided by clinician or team that treats both disorders
2. Comprehensiveness of DD Services • Residential • Family • Skills training • Vocational • Assertive Community Treatment	One or none of listed services are provided	2 of these services provided	3 of these services provided	4 of these services provided	5 of these services provided
3. Time Unlimited DD Services	Specific time limits of up to a year are placed on DD services	Specific time limits of 1-2 years are placed on DD services	Specific time limits or more than 2 years are placed on DD services	No specific time limits on DD services but there is pressure for people to move out of these services	No specific time limits on DD services and no expectations placed on people to move on
4. Outreach Capability for DD Clients	Outreach rarely if ever done	Outreach done for emergency purposes	Outreach is done for medication and symptom monitoring	Outreach is regularly done to attend to basic needs (food, clothing, shelter) 50% of the time when appropriate	Outreach is regularly done to attend to basic needs as well as to develop and maintain therapeutic alliance 75% of the time when appropriate
5. Client to Clinician Ratio	Over 50 clients	40-50 clients	30-40 clients	20-30 clients	20 or less clients

Dual Disorders Integrated Treatment Fidelity Scale (continued) Ratings from 1 to 5					
	1	2	3	4	5
6. Comprehensive Assessment of DD Clients	Neither disorder assessed with specificity	One disorder assessed with some specificity and the other disorder not assessed.	Both disorders assessed with good specificity of one disorder	Both disorders assessed with good specificity but no integration	Both disorders assessed with specificity and some integration
7. Same Treatment Plan Targets both Conditions	Both disorders addressed in less than 25% of treatment plans	Both disorders addressed in 25 – 75% of the treatment plans	Both disorders addressed more than 75% of the time, but plans lack specificity and integration	Both disorders are addressed more than 75% of the time plus good specificity	Both disorders addressed more than 75% of the time plus good specificity and integration
8. Crisis Plan for DD Clients	No written crisis plan for either disorder	Crisis plan for one but not the other disorder	Separate crisis plans for each disorder	Crisis plan targets both substance abuse and mental illness 25-75% of the time	Crisis plan targets both substance abuse and mental illness more than 75% of the time
9. Stage-wise Treatment for DD Clients	Interventions contrary to stages	Some interventions are consistent with clients' motivational stage, but no understanding of stages	Many interventions consistent with client's motivational stage, but no understanding of stages	Most interventions consistent with clients motivational stage and some understanding of stages concept	Awareness of stages concept and interventions based on client's stage
10. Integrated Group Treatment for DD Clients	No groups are offered for DD clients	Groups are offered for only one of the two disorders	Separate groups for each disorder are offered but no integration of the disorder in the groups	Separate groups for each disorder, but some discussion of the other disorder does take place	Integrated groups where both disorders are the focus of the treatment

Dual Disorders Integrated Treatment Fidelity Scale (continued) Ratings from 1 to 5					
	1	2	3	4	5
11. Types of Integrated Group • Education • Persuasion • Active Treatment • Social Skills Training • Relapse Prevention	0 groups	1 group type	2 group types	3 group types	4 or more group types
12. Individual Substance Abuse Counseling for DD Client • Motivational Interviewing • Cognitive-Behavioural Counseling	No individual substance abuse counseling is done	Substance abuse counseling is done 25% of the time	One type of substance abuse counseling is done 75% of the time	One type of substance abuse counseling is done 75% of the time and another type is done 25% of the time	Both types of substance abuse counseling are done 75% of the time.
13. Family Intervention for DD Client and Their Families	Fewer than 20% of families in contact with clients are receiving services	20-40% of families in contact with clients are receiving services	40-60% of families in contact with clients are receiving services	60% or more of families in contact with clients are receiving services, but no standard curriculum or manual is used	60% or more of families in contact with clients are receiving services following a curriculum or manual

Dual Disorders Integrated Treatment Fidelity Scale (continued) Ratings from 1 to 5					
	1	2	3	4	5
14. Pharmacologic Treatment for DD Clients	Pharmacologic treatments for mental illness not provided (or rarely provided) to clients with active substance use disorders	Pharmacologic treatments for mental illness often not provided to clients with active substance use disorders	Pharmacologic treatments for mental illness sometimes not provided to clients with active substance use disorders	Pharmacologic treatments for mental illness usually provided to clients with an active substance use disorder	Pharmacologic treatments for mental illness regularly provided to clients with any active substance use disorder
15. Involuntary Interventions for DD Clients	No involuntary interventions used	At least 1 involuntary intervention is used	At least 2 involuntary interventions are used regularly	At least 3 involuntary interventions are used regularly	All 4 types of involuntary interventions are used regularly
16. Self-Help Liaison	No referral of DD clients to self-help in the community	Occasional referral of DD clients to self-help	Clients often referred to self-help groups	Clients routinely referred to self-help groups and clinicians may attend some groups with clients	Agency-appointed liaison connects clients to self-help group

Dual Disorders Integrated Treatment Fidelity Scale

SCORE SHEET

Center: _____

Informants – Name: _____ Position: _____

Dates _____

Number of records reviewed: _____

Rater: _____

		Ratings				
I	Organizational Factors					
	1. Integration of services	1	2	3	4	5
	2. Comprehensiveness of services	1	2	3	4	5
	3. Time unlimited services	1	2	3	4	5
	4. Outreach	1	2	3	4	5
	5. Client to clinician ratio	1	2	3	4	5
II	Assessment and Treatment Planning					
	6. Comprehensive assessment	1	2	3	4	5
	7 Treatment plan	1	2	3	4	5
	8. Crisis plan	1	2	3	4	5
	9. Stage-wise interventions	1	2	3	4	5
III	Therapeutic Treatment Modalities					
	10. Integrated group treatment	1	2	3	4	5
	11. Type of integrated group treatment	1	2	3	4	5
	12. Individual counseling	1	2	3	4	5
	13. Family intervention	1	2	3	4	5
	14. Pharmacologic interventions	1	2	3	4	5
IV	Other Interventions					
	15. Involuntary interventions	1	2	3	4	5
	16. Self-help groups	1	2	3	4	5
	Total Score					

References

1. Trainor, J., & Church, K. (1984). *A Framework for Support for People with Severe Mental Disabilities.* Toronto: Canadian Mental Health Association.

2. Trainor, J. Pomeroy, E., & Pape, B. (1993). *A New Framework for Support for People with Serious Mental Health Problems*. Published by the Canadian Mental Health Association.

3. Comité permanent de lutte à la toxicomanie. (1997). *Avis sur la double problématique toxicomanie et problèmes de santé mentale*. Présenté au ministre de la Santé et des Services sociaux. Montréal.

4. Mercier, C., & Beaucage, B.(1997). *Toxicomanie et problèmes sévères de santé mentale: recension des écrits et état de situation pour le Québec*. Montréal : Comité permanent de lutte à la toxicomanie.

5. Comité permanent de lutte à la toxicomanie. (1996). *Drogues, alcool et toxicomanie au Québec, des inquiétudes à l'action*. Rapport au ministre de la Santé et des Services Sociaux. Montréal.

6. Comité permanent de lutte à la toxicomanie. (2000). *Drogues, alcool et toxicomanie au Québec, des inquiétudes à l'action*. Rapport au ministre de la Santé et des Services Sociaux. Montréal.

7. Ontario Substance Abuse Bureau. (1999). *Setting the Course*. Toronto: Ontario Ministry of Health and Long-term Care.

8. Ontario Ministry of Health. (1993). *Putting People First: The Reform of Mental Health Services in Ontario*. Ontario: Queen's Printer.

9. Ontario Ministry of Health. (1999). *Making It Happen*. Integrated Policy and Planning Division, and Mental Health System Management, Toronto, Ontario Ministry of Health.

10. Inter-ministry Task Group. (1999). *Meeting the Challenge of Serious Mental Illness and Substance Misuse.* Vancouver: Riverview Hospital.

11. Health Systems Research Unit. (1997). *Review of Best Practices in Mental Health Reform.* Toronto: Clarke Institute of Psychiatry.

12. Health Canada. (1999). *Best Practices Substance Abuse Treatment and Rehabilitation.* Ottawa: Minister of Public Works and Government Services, Cat. #H39-438/1998E.

13. Rush, A. J. (1996). The role of psychotherapy in the treatment of depression. *Archives of General Psychiatry*, 53, 298-300.

14. Herz, N.U., Liberman, R.P., Liebeman, J.A., Marder, S.R., McGlashan, T.H., & Wyatt, R.J. (1997). Practice guidelines for the treatment of patients with schizophrenia. *American Journal of Psychiatry*, 154, Supplement 4.

15. Lehman, A. F., & Steinwachs, D.M., and the Co-Investigators of the PORT Project. (1998). At issue: Translating research into practice: The schizophrenia patient outcomes research team (PORT) treatment recommendations. *Schizophrenia Bulletin*, 24(1), 1-10.

16. Haslam, D.R.S., Gardner, D.M., & Oluboka, T. (1999). Re: Canadian clinical practice guidelines for the treatment of schizophrenia. *Canadian Journal of Psychiatry*, 44(4), 390-391.

17. American Psychiatric Association. (1995). Practice guideline for the treatment of patients with substance use disorders: Alcohol, cocaine and opiods. *The American Journal of Psychiatry*, 152 (11), 5-59.

18. American Psychiatric Association. (1996). Practice guideline for the treatment of patients with nicotine dependence. *American Journal of Psychiatry,* 153(10S), 1-31.

19. U.S. Department of Health and Human Services. (2000). *Clinical Practice Guideline: Treating Tobacco Use and Dependence*. Washington, DC: U.S. Government Printing Office.

20. American Psychiatric Association. (1995). Practice guideline for psychiatric evaluation of adults. *American Journal of Psychiatry*, 152(11S), 67-80.

21. Walker, R.D., Howard, O.W., Walker, P.S., Lambert, M.D., & Suchinsky, R. (1995). Practice guidelines in the addictions: Recent developments. *Journal of Substance Abuse Treatment*, 12(2), 63-73.

22. American Society of Addiction Medicine. (1991). *Patient Placement Criteria for the Treatment of Psychoactive Substance Use Disorders*. Washington, DC.

23. Substance Abuse and Mental Health Services Administration. (1994, Winter). *SAMHSA News*, 14-15.

24. Ries, R. (1994). (Consensus Panel Chair). *Assessment and Treatment of Patients with Coexisting Mental Illness and Alcohol and Other Drug Abuse*, *Treatment Improvement Protocol* (TIP) Series No.9. DHHS Publication No. (SMA) 94-2078). Rockville, MD: Centre for Substance Abuse Treatment (http:/www.health.org/pubs/catalog/ordering.htm).

25. Longest, B.B. Jr. (1994). *Health Policy Making in the United States*. Chicago: AUPHA Press/Health Administration Press.

26. Aday, L., Begley, C.E., Lairson, D.R., & Slater, C.H. (1998). *Evaluating the Healthcare System*. Chicago, Ill: Health Administration Press, 49-51.

27. Ridgely, M.S., Goldman, H.H., & Willenbring, M. (1990). Barriers to the care of persons with dual diagnosis: Organizational and financing issues. *Schizophrenia Bulletin*, 16(1), 123-132.

28. Hood, C., Maugham, C., McGuire, D., & Leigh, G. (1996). *Exploring the Links between Substance Use and Mental Health, [Vol. 1] A discussion paper and a round table.* Ottawa: Health Canada, Cat. No. H39-360/1-1996E

29. Melinyshyn, M., Christie, R., & Shirley, M. (1996). *Travelling the Same Road: A Report on Concurrent Disorders in Ontario*. Toronto: Addiction Research Foundation.

30. Canadian Mental Health Association Ontario Division. (1997). *Concurrent Disorders: Policy Consultation Document*. Toronto: CMHA Ontario.

31. Calderwood, K.A., & Christie, R. (2000). *Systems Models for Concurrent Disorders*. Poster Presentation, Addiction 2000 Conference. Toronto, Ontario.

32. Armstrong, K. (personal communication).

33. King, M. (2000). *Working with Homeless Clients Who Have A Dual Disorder...The Frontline Experience* (unpublished manuscript). Ottawa-Carleton: The Canadian Mental Health Association.

34. Ryglewicz, H., & Pepper, B. (1996). *Lives at Risk: Understanding and Treating Young People with Dual Disorders*. New York: The Fress Press.

35. Drake, R.E., Mercer-McFadden, C., Mueser, K.T., McHugo, G.J., & Bond, G.R. (1998). Review of integrated mental health and substance abuse treatment for patients with dual disorders. *Schizophrenia Bulletin*, 24 (4), 589-608.

36. Drake, R.E., Mercer-McFadden, C., McHugo, G.J., Mueser, K.T., Rosenberg, S.D., Clark, R.E., & Brunette, M.F. (Eds.) (1998). *Readings in Dual Diagnosis*. Columbia, MD: International Association of Psychosocial Rehabilitation Services.

37. Siegfried, N. (1998). A review of comorbidity: Major mental illness and problematic substance use. *Australian and New Zealand Journal of Psychiatry,* 3, 707-717.

38. Daley, D.C., Moss, H.B., & Campbell, F. (1993). *Dual disorders: Counselling Clients with Chemical Dependency and Mental Illness* (Second Edition). Center City, Minnesota: Hazelton Foundation.

39. Rosenthal, R., & Westreich, L. (1999). Treatment of persons with dual disorders of substance use disorder and other psychological problems. In B.S. McCrady & E.E. Epstein (Eds.) *Addictions: A Comprehensive Guidebook*. New York: Oxford University Press, pp.439-475.

40. RachBeisel, J., Scott, J., & Dixon, L. (1999). Co-occurring severe mental illness and substance use disorders: A review of recent research. *Psychiatric Services*, 50(11), 1427-1434.

41. Carey, K.B., & Correia, C.J. (1998). Severe mental illness and addictions: assessment considerations. *Addictive Behaviors*, 23(6), 735-748.

42. Sciacca, K. (1990). *MIDAA Service Manual for Mental Illness, Drug Addiction, and Alcoholism*. New York: Sciacca Comprehensive Service Development. (hhtp://users.erols.com/ksciacca).

43. Blanchard, J.J. (2000). The co-occurrence of substance use in other mental health disorders: Editor's introduction. *Clinical Psychology Review*, 20(2), 145-148.

44. Mueser, K.T., Noordsy, D.L., Drake, R.E., & Fox, L. (in press). *Integrated Treatment for Dual Disorders: Effective Intervention for Severe Mental Illness and Substance Abuse*. New York: Guilford Press.

45. Mueser, K.T., Drake, R.E., & Wallach, M.A. (1998). Dual diagnosis: A review of etiological theories. *Addictive Behaviors*, 23(6), 717-734.

46. American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. Washington, D.C.: American Psychiatric Association Press.

47. Weiss, R.D., Mirin, S.M., & Frances, R.J. (1992). The myth of the typical dual diagnosis patient. *Hospital and Community Psychiatry,* 43(2), 107-108.

48. Skinner, H. (1985). The clinical spectrum of alcoholism: Implications for new drug therapies. In C.A. Naranjo and E.M. Sellers. (Eds.) *Research Advances in New Pharmacological Treatments for Alcoholism*. Elsevier Science Publishers.

49. Chen, C., Balogh, M., Bathija, J., Howanitz, E., Plutchik, R., & Conte, H.R. (1992). Substance abuse among psychiatric inpatients. *Comprehensive Psychiatry*, 33, 60-64.

50. Drake, R.E., Osher, F.C., & Wallach, M.A. (1989). Alcohol use and abuse in schizophrenia: A prospective community study. *The Journal of Nervous and Mental Disease*, 177(7), 408-414.

51. Driessen, M. (1998). Axis I and Axis II comorbidity in alcohol dependence and the two types of alcoholism. *Alcoholism: Clinical and Experimental Research*, 22(1), 77-86.

52. Lehman, A.F. (1996). Heterogeneity of person and place: Assessing co-occurring addictive and mental disorders. *American Journal of Orthopsychiatry*, 66(1), 32-41.

53. Weiss, R.D., & Collins, D.A. (1992). Substance abuse and psychiatric illness, the dually diagnosed patient. *American Journal on Addictions*, 2, 93-99.

54. Kushner, M.G., Abrams, K., & Borchardt, C. (2000). Relationship between anxiety disorders and alcohol use disorders: A review of major perspectives and findings. *Clinical Psychology Review*, 20, 149-171.

55. Zinberg, S. (1999). A dual diagnosis typology to improve diagnosis and treatment of dual disorder patients. *Journal of Psychoactive Drugs*, 31(1),47-51.

56. Hein, D., Zinberg, S., Weisman, S., First, M.I., & Ackerman, S. (1997). Dual diagnosis sub-types in urban substance abuse and mental health clinics. *Psychiatric Services*, 48, 1058-1063.

57. Schuckit, M.A. (1985). The clinical implications of primary diagnostic groups among alcoholics. *Archives of General Psychiatry*, 42, 1043-1049.

58. Schuckit, M., & Hesselbrock, V. (1994). Alcohol dependence and anxiety disorders: What is the relationship? *American Journal of Psychiatry*, 151, 1734.

59. Prochaska, J.O., & DiClemente, C.C. (1984). *The Transtheoretical Approach: Crossing Traditional Boundaries of Therapy*. Homewood IL: Dorsey.

60. Prochaska, J.O., DiClemente, C.C., & Norcross, J.C. (1992). In search of how people change. Applications to addictive disorders. *American Psychologist*, 47, 1102-1114.

61. Osher, F.C., & Kofoed, L.L. (1989). Treatment of patients with psychiatric and psychoactive substance abuse disorders. *Hospital and Community Psychiatry*, 40, 1025-1030.

62. McHugo, G.J., Drake, R.E., Burton, H.L., & Ackerson, T.H. (1995). A scale for assessing the stage of substance abuse treatment in persons with severe mental illness. *Journal of Nervous and Mental Disease*, 183, 762-767.

63. Comtois, K.A., Ries, R., & Armsrong, H.E. (1994). Case manager ratings in a dual diagnosis program for the severely mentally ill. *Hospital and Community Psychiatry*, 45, 568-573.

64. Drake, R.E., & Mueser, K. (2000). Psychosocial approaches to dual diagnosis. *Schizophrenia Bulletin*, 26(1), 105-118.

65. Ries, R. (1993). Clinical treatment matching models for dually diagnosed patients. *Recent Advances in Addictive Disorders*, 16(1), 167-175.

66. Room, R. (1998). *The Co-occurrence of Mental Disorders and Addictions: Evidence on Epidemiology, Utilization and Treatment Outcome*. (ARF Research Document Services). Toronto: Addiction Research Foundation.

67. Ridgely, M.S., Goldman, H.H., & Talbot, J.A. (1986). *Chronic Mentally Ill Young Adults with Substance Abuse Problems: A Review of the Literature and Creation of a Research Agenda*. Baltimore, MD: Mental Health Policy Studies, University of Maryland School of Medicine.

68. Ridgely, M.S., Osher, F.C., & Talbot, J.A. (1987). *Chronic Mentally Ill Young Adults with Substance Abuse Problems: Treatment and Training Issues*. Baltimore, MD: Mental Health Policy Studies, University of Maryland School of Medicine.

69. Institute of Medicine. (1990). *Broadening the Base of Alcohol Treatment*. Washington, D.C.: National Academy Press.

70. Drainoni, M., & Bachman, S.S. (1995). Overcoming treatment barriers to providing services for adults with dual diagnosis: Three approaches. *Journal of Disability Policy Studies*, 6(1), 43-55.

71. Randolph, F. (November, 2000). *Access to Community Care and Effective Services and Supports (ACCESS) Demonstration Program*. Paper presented at the annual meeting of the American Evaluation Association, Honolulu, Hawaii.

72. Barreira, P., Espey, B., Fishbein, R., Moran, D., & Flannery, R.B. (2000). Linking substance abuse and serious mental illness service delivery systems: Initiating a statewide collaboration. *Journal of Behavioral Health Services and Research*, 27(1), 107-113.

73. Carling, P. (1995). *Return to Community: Building Support Systems for People with Psychiatric Disabilities.* New York: The Guilford Press.

74. Ochaka, J., Nelson, G., & Lord, J. (1999). Organizational change towards the empowerment-community paradigm in community mental health. *Canadian Journal of Community Mental Health*, 18(2), 59-72.

75. Reiger, D.A., Farmer, M.E., & Rae, D.S. (1990). Co-morbidity of mental disorders with alcohol and other drug abuse. Results from the Epidemiological Catchment Area (ECA) study. *Journal of American Medical Association*, 264, 2511-2518.

76. Kessler, R. C., Nelson, C. B., McGonagle, K. A., Edlund, M. J., Frank, R. G., & Leaf, P. J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 66, 17-31.

77. Menezes, P.R., Johnson, S., Thornicroft, G., Marshall, J., Prosser, D., Bebbington, P.I., & Kuipers, E. (1996). Drug and alcohol problems among individuals with severe mental illness in South London. *British Journal of Psychiatry*, 168, 612-619.

78. Hall, W. (1996). What have population surveys revealed about substance use disorders and their co-morbidity with other mental disorders. *Drug and Alcohol Review*, 15, 157-70.

79. Farrell, M., Howes, S., Taylor, C., Lewis, G., Jenkins, R., Bebbington, P., Jarvis, M., Brugha, T., Gill, B., & Meltzer, H. (1998). Substance misuse and psychiatric comorbidity: An overview of the OPCS National Psychiatric Morbidity Survey. *Addictive Behaviors*, 23(6), 909-918.

80. Offord, D.R., Boyle, M.H., Campbell, D., Goering, P., Lin, E., Wong, M., & Racine, Y.A. (1996). One-year prevalence of psychiatric disorder in Ontarians 15-64 years of age. *Canadian Journal of Psychiatry*, 41, 559-563.

81. Ross, H. (1995). DSM-III-R alcohol abuse and dependence and psychiatric co-morbidity in Ontario: results from the Mental Health Supplement to the Ontario Health Survey. *Drug and Alcohol Dependence*, 39, 111-128.

82. Ogborne, A.C., & DeWitt, D.J. (1999). Lifetime use of professional and community services for help with drinking: Results from a Canadian population survey. *Journal of Studies on Alcohol*, 60, 867-872.

83. Ross, H.E., Lin, E., & Cunningham, J. (1999). Mental health use: A comparison of treated and untreated individuals with substance use disorders in Ontario. *Canadian Journal of Psychiatry*, 44, 570-577.

84. Kessler, R.C., McGonagle, K.A., Zhao, S., Nelson, C.B., Hughes, M., Eshleman, S., Wittchen, H.U., & Kendler, K.S. (1994). Lifetime, and 12-month prevalence of DSM-III-run psychiatric disorders in the United States. Results from the National Comorbidity Survey. *Archives of General Psychiatry*, 51, 8-19.

85. Grant, B.F. (1997). The influence of comorbid major depression and substance use disorders on alcohol and drug treatment: Results from a national survey. In L.S. Onken, J.D. Blaine, S, Genser, A. M. Horton (Eds.) *Treatment of Drug Dependent Individuals with Comorbid Mental Disorders*. Rockville, Md.: National Institute on Drug Abuse.

86. Nadeau, L., Guyon, L., & Bourgault, C. (1997). Heavy drinkers in the general population: comparison of two measures. *Addiction Research*, 5(4), 1-25.

87. Reiger, D.A., Narrow, W.E., Rae, D.S., Manderscheid, R.W., Locke, B.Z., & Goodwin, F.K. (1993). The de facto US mental and addictive disorders service system: Epidemiologic catchment area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry*, 50, 85-94.

88. Moss, R.H., Brennan, P.L., & Mertens, J.R. (1994). Diagnostic subgroups and predictors of one-year readmission among late-middle-aged and older substance abuse patients. *Journal Studies on Alcohol*, 55:173-183.

89. Moss, R.H., Mertens, J.R., & Brennan, P.L. (1994). Rates and predictors of four-year readmission among late-middle-aged and older substance abuse patients. *Journal of Studies on Alcohol*, 5, 561-570.

90. Bartels, S.J., Teague, G.B., Drake, R.E., Clarke, R.E., Bush, P., & Noordsy, D.L. (1993). Substance use in schizophrenia: service utilization and costs. *Journal of Nervous and Mental Diseases*, 181, 227-232.

91. Dickey, B., & Azeni, H. (1996). Persons with dual diagnosis of substance abuse and major mental illness: their excess costs of psychiatric care. *American Journal of Public Health*, 86, 973-977

92. Helzer, J.F., & Pryzbeck, T.R. (1988). The co-occurrence of alcoholism with other psychiatric disorders in the general population and its impact on treatment. *Journal of Studies on Alcohol*, 49, 219-224.

93. Weisner, C., & Schmidt, L. (1993). Alcohol and drug problems among diverse health and social service populations. *American Journal of Public Health*, 83, 824-829.

94. Bernadt, M.W., & Murray, R.M. (1986). Psychiatric disorder and alcoholism: What are the links? *British Journal of Psychiatry*, 148, 393-400.

95. Miller, N.S. (1991). A review of the interaction in psychiatric syndromes and drug and alcohol addiction. In N.S. Miller (Ed.), *Comprehensive Handbook of Drug and Alcohol Addiction*. New York: Marcel Dekker, pp. 1275-1289.

96. Schuckit, M.A., & Monteiro, M.S. (1988). Alcoholism, anxiety and depression. *British Journal of Addiction*, 83, 1373-1380.

97. Hesselbrock, M.N., Meyer, R.E., & Keener, J.J. (1985). Psychopathology in Hospitalized Alcoholics. *Archives of General Psychiatry*, 42, 1050-1055.

98. Gossop, M., Stewart, M.S., Lehmann, P., Edwards, C., Wilson, A., & Segar, G. (1998). Substance use, health and social problems of service users at 54 drug treatment agencies. *British Journal of Psychiatry*. 173, 166-171.

99. Miller, N.S., Hoffman, N.G., Ninonuevo, F., & Astrachan, B.M. (1997). Lifetime diagnosis of major depression as a multivariate predictor of treatment outcome for patients with substance use disorders from abstinence-based programs. *Annals of Clinical Psychiatry*. 9(3), 127-137.

100. Penick, E.C., Nickel, E.J., Cantrell, P.F., Powell, B.J., Read, M.R., & Thomas, M.M. (1990). The emerging concept of dual diagnosis: An overview and implications. [Special Issue: Managing the dually diagnosed patient: Current issues and clinical approaches]. *Journal of Chemical Dependency Treatment*, 3(2), 1-54.

101. Cuffel, B.J. (1996). Comorbid substance use disorder: Prevalence, patterns of use, and course. *New Directions for Mental Health Services,* 70, 93-105.

102. Craig, R.J., & Olson, R.E. (1990). MCMI comparisons of cocaine abusers and heroin addicts. *Journal of Clinical Psychology,* 46, 230-237.

103. Marsh, D.T., Stile, S.A., Stoughton, N.L., & Trout-Landen, B.L. (1988). Psychopathology of opiate addiction: comparative data from the MMPI and MCMI. *American Journal of Drug and Alcohol Abuse,* 14, 17-27.

104. Nadeau, L., Landry, M., & Racine, S. (1999). Prevalence of personality disorders among clients in treatment for addiction. *Canadian Journal of Psychiatry*, 44(6), 592-566.

105. Ross, H.E., Glaser, F.B., & Germanson, T. (1988). The prevalence of psychiatric disorders in patients with alcohol and other drug problems. *Archives of General Psychiatry*, 4, 1023-1031.

106. Caton, C.L.M., Gralick, A., Bender, S., & Simon, R. (1989). Young chronic patients and substance abuse. *Hospital and Community Psychiatry*, 40, 1037-1040.

107. Pepper, B., Kirshner, M., & Ryglewicz, H. (1981). The young adult chronic patient: Overview of a population. *Hospital and Community Psychiatry*, 32(7), 463-469.

108. Bachrach, L. (1982). The young adult chronic patient: An analytical review of the literature. *Hospital and Community Psychiatry*, 33,(3), 189-197.

109. Drake, R.E., & Brunette, M.F. (1998). Complications of severe mental illness related to alcohol and other drug use disorders. In M. Galanter (Ed.), *Recent Advances in Alcoholism Vol. 14. Consequences of alchoholism*. New York: Plenum, pp. 285-299.

110. Mandersheid, R.W., & Rosenstein, M. J. (1992). Homeless persons with mental illness and alcohol or other drug abuse: Current research, policy, and prospects. *Current Opinion in Psychiatry*, 5, 273-278.

111. Drake, R.E., Osher, F.C., & Wallach, M.A. (1991). Homelessness and dual diagnosis. *American Psychologist*, 46 (11), 1149-1158.

112. Mueser, K.T., Sengupta, A., Schooler, N.R., Belleck, A.S., Xie, H., Glick, I.D., & Kieth, S.J. (in press). Family treatment and medication dose reduction in schizophrenia: Effects on patient social functioning, family attitudes and burden. *Journal of Consulting and Clinical Psychology*.

113. Clément, M.È., & Tourigny, M. (1999). *Négligence envers les enfants et toxicomanie des parents: Portrait d'une double problématique*. Montréal : Comité permanent de lutte à la toxicomanie.

114. Tourigny, M., & Dufour, M. (2000). *La consommation de drogues ou d'alcool en tant que facteur de risque des agressions sexuelles envers les enfants: Une recension des écrits*. Montréal : Comité permanent de lutte à la toxicomanie.

115. Brown, T., Caplan, T., Werk, A. Seraganian, P., & Singh, M-K. (2000). *Substance Abuse and Conjugal Violence: Review of the Literature and the Situation in Quebec.* Montréal : Comité permanent de lutte à la toxicomanie.

116. Cuffel, B.J. (1994). Violent and destructive behaviour among the severely mentally ill in rural areas: Evidence from Arkansas' community mental health system. *Community Mental Health Journal*, 30, 495-504.

117. Rosenberg, S.D., Goodman, L.A., Osher, F.C., Swartz, M., Essock, S.M., Butterfield, M.I., Constantine, N.T., Wolford, G.L., & Salyers, M.P. (2001). Prevalence of HIV, Hepatitis B and Hepatitis C in people with severe mental illness. *American Journal of Public Health*, 91(1), 31-37.

118. Rosenberg, S.D., Mueser, K.T., Metzger, D.S., Vidaver, R.M., Trumbetta, S.L., & Goodman, L.A. (in press). Behavior for HIV/AIDS in people with severe and persistent mental illness. *Comprehensive Psychiatry*.

119. Rosenberg, S., Drake, R.E., & Mueser, K.T., (1996). New directions for treatment research on sequelae of sexual abuse in persons with severe mental illness. *Community Mental Health Journal*, 32, 387-400.

120. Mueser, K., Goodman, L.B., Trumbetta, S.L., Rosenberg, S.D., Osher, F.C., Vidaver, R., Auciello, P., & Foy, D.W. (1998). Trauma and posttraumatic stress disorder in severe mental illness. *Journal of Consulting and Clinical Psychology*, 66, 493-499.

121. Gearon, J.S., & Bellack, A.S. (1999). Woman with schizophrenia and co-occurring substance use disorders: An increased risk for violent victimization and HIV. *Community Mental Health Journal*, 35(5), 401-419.

122. Brown, V.B., Huba, G.J., & Melchior, L.A. (1995). Level of burden: Women with more than one co-occurring disorder. *Journal of Psychoactive Drugs*, 27, 339-346.

123. Harris, M. (1994). Modifications in service delivery and clinical treatment for women diagnosed with severe mental illness and who are also survivors of sexual abuse trauma. *Journal of Mental Health Administration*, 21, 397-406.

124. Mueser, K.T., Becker, D.R., Torrey, W.C., Xie, H., Bond, G.R., Drake, R.E., & Dain, B.J. (1997). Work and nonvocational domains of functioning in persons with severe mental illness: A longitudinal analysis. *Journal of Nervous and Mental Disease*, (7), 419-426.

125. Becker, D.R., & Drake, R.E. (in press). Improving employment outcomes for people with severe psychiatric disabilities. In B. Dickey & L. Sederer (Eds.) *Improving quality in Psychiatric and Substance Abuse Practice: Concepts and Case Studies*. Washington, DC: American Psychiatric Press.

126. Dixon, L., McNary, S., & Lehman, A. (1998). Remission of substance use disorder among psychiatric in patients with mental illness. *American Journal of Psychiatry*, 155, 239-243.

127. Owen, R.R., Fischer, E.P., Booth, B.M., & Cuffel, B.J. (1996). Medication noncompliance and substance abuse among patients with schizophrenia. *Psychiatric Services*, 47, 853-858.

128. Tomasson, K., & Vaglum, P. (1997). The 2-year course following detoxification treatment of substance abuse: The possible influence of psychiatric comorbidity. *European Archives of Psychiatry and Clinical Neurosciences*, 247(6), 320-327.

129. Hasin, D.S., Grant, B.F., & Endicott, J. (1988). Lifetime psychiatric comorbidity in hospitalized alcoholics: subject and familial correlates. *International Journal of the Addictions*, 23, 827-850.

130. McLellan, A.T., Luborsky, L., Woody, G.E., O'Brien, C.P., & Druley, K.A. (1983). Predicting response to alcohol and drug abuse treatments. *Archives of General Psychiatry*, 40, 620-625.

131. Rounsaville, B.J., Dolinsky, Z.S., Babor, T.F., & Meyer, R.E. (1987). Psychopathology as a predictor of treatment outcome in alcoholics. *Archives of General Psychiatry*, 44, 505-513.

132. Clopton, J.R., Weddige, R.L., Contreras, S.A., Fliszar, G.M., & Arredondo, R. (1993). Treatment outcome for substance misuse patients with personality disorder. *The International Journal of the Addictions*, 28, 1147-1153.

133. Guyon, L., & Landry, M. (1996). L'abus de substances psychoactive, un problème parmis d'autres? Portrait d'une population en traitment. *Psychotropes, Revue Internationale des Toxicomanies*, 1, 61-81.

134. Kosten, T.A., Kosten, T.R., & Rounsaville, B.J. (1989). Personality disorders in opiate addicts show prognostic specificity. *Journal of Substance Abuse Treatment,* 6, 163-168.

135. Landry, M., Cournoyer, L.G., Bergeron, J., & Brochu, S. (2000). Co-morbidité, structure du traitment et profile bio-psychosocial: Abandon prématuré de toxicomanes en centre de réadaptation. *Revue Canadienne des Sciences du comportement*, 28(2), 199-137.

136. Stark, M.J. (1992). Dropping out of substance abuse treatment: A clinically oriented review. *Clinical Psychology Review,* 12, 93-116.

137. Reich, J. H., & Green, A.I. (1991). Effect of personality disorders on outcome of treatment. *The Journal of Nervous and Mental Disease*, 179, 74-82.

138. Reich, J.H., & Valise, E.G. (1993). Effect of personality disorders on the treatment of Axis I conditions: an update. *The Journal of Nervous and Mental Disease*, 181, 475-484.

139. Brown, V.B., Melchior, L.A., & Huba, G.J. (1999). Level of burden among women diagnosed with severe mental illness and substance abuse. *Journal of Psychoactive Drugs,* 31(1) 31-39.

140. Gill, K., Nolimal, D., & Crowley, T.J. (1992). Antisocial personality disorder, HIV risk behavior and retention in methadone maintenance therapy. *Drug and Alcohol Dependence*, 30, 247-252.

141. Luborsky, L., McLellan, A.T., Woody, G.E., O'Brien, C.P., & Auerbach, A. (1985). Therapist success and its determinants. *Archives of General Psychiatry,* 42, 602-611.

142. Mercer-McFadden, C., Drake, R.E., Brown, B., & Fox, R.S. (1997). The community support program demonstration services for young adults with severe mental illness and substance use disorders 1987-1991. *Psychiatric Rehabilitation Journal*, 20(3), 13-24.

143. Powell, B.J., Pennick, E.J., Liskow, B.L., Riesenmey, K.D., Campion, S.L., & Brown, E.F. (1992). Outcomes of co-morbid alcoholic men: A 1-year follow-up. *Alcoholism: Clinical and Experimental Research*, 16(1), 131-138.

144. Verheul, R., Van den Brink, W., & Koeter, M.W.J. (1998). Temporal stability of diagnostic criteria for antisocial personality disorder in male alcohol dependent patients. *Journal of Personality Disorders*, 12(4), 316-331.

145. Verheul, R., Kranzler, H.R., Poling, J., Tennen, H., Ball, S., & Rounsaville, B.J. (2000). Axis I and Axis II disorders in alcoholics and drug addicts: Fact or artifact? *Journal of Studies on Alcohol*, 61:(1), 101-110.

146. Anglin, M.D., & Hser, Y.I. (1990). Treatment of drug abuse. In M. Tonry & J.Q. Wilson (Eds.), *Drugs and Crimes.* Chicago: University of Chicago Press, pp. 393-460.

147. Brochu, S., Landry, M., Bergeron, J., & Chioccio, F. (1997). The impact of a treatment process for substance users as a function of their degree of exposure to treatment. *Substance Use and Misuse*, 32(14), 1993-2011.

148. DeLeon, G. (1985). The therapeutic community: Status and evolution. *The International Journal of the Addictions,* 20, 823-844.

149. Hubbard, R.L., Rachal, J.V., Graddock, S.G., & Cavanaugh, E.R. (1984). Treatment outcome prospective study (TOPS): Client characteristics and behaviors before, during and after treatment. In F.M. Tims & J.P. Ludforc (Eds.) *Drug Abuse Treatment Evaluation: Strategies, Progress and Prospects*. National Institute on Drug Abuse Research Monograph, No. 51, Rockville, Md.: National Institute on Drug Abuse.

150. Polich, M., Armor, D.J., & Braiker, B. (1981). *The Course of Alcoholism: Four Years Later*. New York: John Wiley and Sons.

151. Simpson, D.D. (1979). The relation of time spent in drug abuse treatment to post-treatment outcome. *American Journal of Psychiatry*, 136, 1449-1453.

152. Simpson, D.D. (1981). Treatment for drug abuse: Follow-up outcomes and length of time spent. *Archives of General Psychiatry*, 38, 875-880.

153. Simpson, D.D., & Sells, S.B. (1982). Effectiveness of treatment for drug abuse: An overview of the DARP research program. *Advances in Alcohol and Substance Abuse Treatment,* 2, 7-29.

154. Simpson, D.D., Joe, G.W., Broome, K.M., Hiller, M.L., Knight, K., & Rowan-Szal, G.A. (1997). Program diversity and treatment retention rates in the drug abuse treatment outcome study (DATOS). *Psychology of Addictive Behaviors*, 11(4), 279-293.

155. Young, N.K., & Grella, C.E. (1998). Mental health and substance abuse treatment services for dually diagnosed clients: Results of a statewide survey of county administrators. *Journal of Behavioral Health Services and Research*, 25(1), 83-92.

156. Drake, R.E., Osher, F.C., Noordsy, D.L., Hurlbut, S.C., Teaque, G.B., & Beaudett, M.S. (1990). Diagnosis of alcohol use disorders in schizophrenia. *Schizophrenia Bulletin*, 16, 57-67.

157. Galanter, M., Castaneda, R.E., & Ferman, J. (1988). Substance abuse amoung psychiatric patients. *American Journal of Drug and Alcohol Abuse*, 14, 211-235.

158. Carnes, P. (1992). *Out of the Shadows: Understanding Sexual Addiction (2nd Ed.)*. Center City, Minnesota: Hazeldon.

159. Evans, K., & Sullivan, J.M. (1995). *Treating Addicted Survivors of Trauma*. New York: The Guilford Press.

160. Marshall, W.L., Laws, D.R., & Barbaree, H.E. (Eds.). *Handbook of Sexual Assault: Issues, Theories and Treatment of the Offender*. New York: Plenum Press.

161. Howard, M.O., & Jensen, J.M. (1999). Clinical practice guidelines: Should social work develop them. *Research on Social Work Practice*, 9(3), 283-301.

162. Alberta Ministry of Health and Wellness. (undated). *Best Practices. A Report of the Review of Health Authorities*. (url http://www.health.gov.ab.ca/public/documents/bestpra.htm).

163. Harris, J.S. (1997). Development, use and evaluation of clinical practice guidelines. *Journal of Occupational and Environmental Medicine*, 39,(1), 23-34.

164. Kahn, D.A., Docherty, J.P., Carpenter, D., & Frances, A. (1997). Consensus methods in practice guideline development: A review and description of a new method. *Psychopharmacology Bulletin*, 33(4), 631-639.

165. Lomas, J. (1991). Words without action? The production, dissemination, and impact of consensus recommendations. *Annual Review of Public Health*, 12, 41-65.

166. Owen, M., & Jansen, J.M. (1999). Barriers to development, utilization and evaluation of social work practice guidelines: Toward an action plan for social work. *Research on Social Work Practice*, 9(3), 347-364.

167. Jones, J., & Hunter, D. (1995). Qualitative research: Consensus methods for medical and health services research. *British Medical Journal*, 311, 376-380.

168. Williams, J.B.W., & Lanigan, J. (1999). Practice guidelines: Rapprochement or estrangement between social work practitioners and researchers. *Research on Social Work Practice*, 9(3), 322-330.

169. Kofoed, L.L. (1991). Assessment of comorbid substance abuse and other major psychiatric illnesses. K. Minkoff and R.E. Drake (Eds.) *Dual Diagnosis of Major Mental Illness and Substance Disorder. New Directions for Mental Health Services*. (No. 50). San Francisco: Jossey-Bass, pp. 43-55.

170. Carey, K.B. (1997). Challenges in assessing substance use patterns in persons with comorbid mental and addictive disorders. In L. Onken, J.D. Blane, S. Genser & A.M. Horton (Eds.), *Treatment of Drug-dependent Individuals with Comorbid Mental Disorders*. NIDA Research Monograph 172. NIH Pub. No. 97-4172. Washington, D.C.: National Institute on Drug Abuse, pp. 16-32.

171. Barry, K.L., Fleming, M.F., Greenley, J., Widlak, P., Kropp, S., & McKee, D. (1995). Assessment of alcohol and other drug problems in the seriously mentally ill. *Schizophrenia Bulletin*, 21, 315-321.

172. Brown, R. L. (1992). Identification and office management of alcohol and drug disorders. In M.F. Fleming., & Barry, K.L. (Eds.) *Addictive Disorders*, St. Louis: Mosby Yearbook.

173. Rosenberg, S.D., Wolford, G.L., Mueser, K.T., Oxman, T.E., Vidaver, R.M., Carrieri, K.L., & Luckoor, R. (1998). Dartmouth Assessment of Lifestyle Instrument (DALI): A substance use disorder screen for people with severe mental illness. *American Journal of Psychiatry*, 155(2), 232-238.

174. McLellan, T., & Dembo, R. (1994). (Consensus Panel Chair and Co-chair). *Screening and Assessment of Alcohol and Other Drug-abusing Adolescents. Treatment Improvement Protocol* (TIP) Series No. 3. DHHS Publication No. (SMA) 95-3058. Rockville, MD: Centre for Substance Abuse Treatment. (hhtp:/www.health.org.pubs/catalog/ordering.htm)

175. Landry, M., Bergeron, J., Provost, G., Germain, M., & Guyon, L. (2000). *Indice de gravité d'une toxicomanie (IGT) pour les adolsecents et les adolescents et les adolescentes : étude des qualités psychométriques*. Montreal : Cahiers de recherche du RISQ.

176. Skinner, H.A., Glaser, F.B., & Annis, H.M. (1982). Crossing the threshold: Factors in self-identification as an alcoholic. *British Journal of Addiction*, 77:51-64.

177. Mayfield , D., Mcleod, G., & Hall, P. (1974). The CAGE questionnaire: Validation of a new alcoholism instrument. *American Journal of Psychiatry*, 131, 1121-1123.

178. Teitelbaum, L.M., & Carey, K.B. (1996). Alcohol assessment in psychiatric patients. *Clinical Psychology: Science and Practice*, 3(4), 323-338.

179. Wolford, G.L., Rosenberg, S.D., Drake, R.E., Mueser, K.T., Oxman, T.E., Hoffman, D., Vidaver, R.M., Luckoor, R., & Carrieri, K.L. (1999). Evaluation of methods for detecting substance use disorder in persons with severe mental illness. *Psychology of Addictive Behaviors*, 13(4), 313-326.

180. Russell, M., Mantier, S.S., Sokol, R.J., Mudar, P., Bottoms, S., Jacobson, S., & Jacobson, J. (1994). Screening for pregnancy risk-drinking. *Alcoholism: Clinical and Experimental Research*, 18, 1156-1161.

181. Cherpitel, C.J. (2000). A brief screening instrument for problem drinking in the emergency room: The RAPS4. *Journal of Studies on Alcohol*, 61, 447-449.

182. Selzer, M.L., (1971). The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. *American Journal of Psychiatry*, 127, 1653-1658.

183. Selzer, M., Vinokur, A., & Van Rooijen, L. (1975). A self-administered Short Michigan Alcoholism Screening Test (SMAST). *Journal of Studies on Alcohol*, 36, 117-126.

184. Connors, G.J. (1995). Screening for alcohol problems. In J.P. Allen & M. Columbus (Eds.), *Assessing Alcohol Problems*. Bethesda, MD.: National Institutes of Health, pp. 17-30.

185. Skinner, H. (1982). The Drug Abuse Screening Test. *Addictive Behaviours*, 7, 363-371.

186. Cocco, K. M., & Carey, K.B., (1998). Psychometric properties of the Drug Abuse Screening Test in psychiatric outpatients. *Psychological Assessment*, 10(4), 408-414.

187. Maisto, S.A., Carey, M.P., Carey, K.B., Gordon, C.M., & Gleason, J.R. (2000). Use of the AUDIT and the DAST-10 to identify alcohol and drug use disorders among adults with a severe and persistent mental illness. *Psychological Assessment*, 12(2), 186-192.

188. Saunders, J.B., Aasland, O.G., Babor, T.F., De La Fuente, J.R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption II, *Addiction*, 88, 791-804.

189. Allen, J.P., Litten, R.Z., Fertig, J.B., & Babor, T. (1997). A review of research on the Alcohol Use Disorders Identification Test (AUDIT). *Alcoholism: Clinical and Experimental Research*, 21, 613-619.

190. Dennis, M. *Global Appraisal of Individual Needs*. Available from Chestnut Health Systems. (www.chestnut.org).

191. Derogratis, L.R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, 13, 593-605.

192. Goldberg, D.P., Rickels, K., Downing, R., & Hesbacher, P. (1976). A comparison of two psychiatric screening tests. *British Journal of Psychiatry*, 129, 61-67.

193. Goldberg, D.P., Gater, R., Sartorius, N., Ustun, T.B., Piccinelli, M., Gureje, O., & Rutter, C. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychological Medicine*, 27, 191-197.

194. Radloff, L.S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Journal of Applied Psychological Measurement*, 1, 385-401.

195. McLellan, A. T., Kusher, H., Metzger, D., Peters, R., Smith, I., Grisson, G., & Pettinati, H. (1992). The fifth edition of the Addiction Severity Index: Historical critique and normative data. *Journal of Substance Abuse Treatment*, 9, 199-213.

196. Spitzer, R.L., Williams, J.B.W., Kroenke, K., Linzer, M., de Gruy, F.V., Hahn, S.R., Brody, D., & Johnson, J.G. (1994). Utility of a new procedure for diagnosing mental disorders in primary care. The PRIME-MD 1000 Study. *Journal of the American Medical Association*, 272, 1749-1756.

197. Negrete, J., Collins, W., Skinner, W., & Turner, N. (Toronto, 1997). *The Psychiatric Screener: Development and Initial Field Trial.* Paper presented at the Conference on Co-occurring Substance Use and Mental Disorders.

198. Dennis, M. (personal communication).

199. Kessler, M. (personal communication).

200. Drake, R.E., & Mercer-McFadden, C. (1995). Assessment of substance abuse among people with severe mental disorders. In A.F. Lehman and L. Dixon (Eds.), *Double Jeopardy: Chronic Mental Illness and Substance Abuse*. New York: Harwood Academic Press, 47-62.

201. Del Boca, F., & Noll, J.A. (2001). Truth or consequences: The validity of self-report data in health services research on addictions. *Addiction*, 95(3), S347-S360.

202. Bryant, K. L., Rounsaville, B., Spitzer, R.L., & Williams, J.B.W. (1992). Reliability of dual diagnosis: substance dependence and psychiatric disorders. *Journal of Nervous and Mental Disorders*, 180, 251-257.

203. Corty, E., Lehman, A.F., & Meyers, C.F. (1993). Influence of psychoactive substance use on the reliability of psychiatric diagnosis. *Journal of Consulting and Clinical Psychology*, 61, 165-170.

204. Kranzler, H.R., Kadden, R.M., Babor, T.F., & Rounsaville, B.J. (1994). Longitudinal, expert, all data procedure for psychiatric diagnosis in patients with psychoactive substance use disorders. *Journal of Nervous and Mental Disorders*, 182, 277-283.

205. First, M.B., Spitzer, R.L., Gibbon, M., & Williams, J.B.W. (l995). *Structured Clinical Interview for Axis I DSM-IV Disorders – Patient Edition (SCID-I/P).* New York: Biometrics Research Department, NY State Psychiatric Institute.

206. Drake, R.E., Mueser, K.T., & McHugo, G.J. (1996). Clinician rating scales: Alcohol Use Scale (AUS), Drug Use Scale (DUS), and Substance Abuse Treatment Scale (SATS). In L.I. Sederer & B. Dickey (Eds.), *Outcomes Assessment in Clinical Practice*. Belmont, MA: Williams and Wilkins.

207. Dennis (1999) (www.nida.hih.gov)

208. Sobell, L.C., & Sobell, M. B. (1992). Timeline Follow-back: A technique for assessing self-reported alcohol consumption. In R. Litten and J. Allen (Eds.) *Measuring Alcohol Consumption: Psychosocial and Biological Methods*. Totowa, NJ: The Humana Press, Inc.

209. Sobell, L.C., Toneatto, T., & Sobell, M.B. (1994). Behavioral assessment and treatment planning for alcohol, tobacco, and other drug problems: Current status with an emphasis on clinical applications. *Behavior Therapy*, 25, 533-580.

210. Stasiewicz, P.R., Carey, K.B., Bradizza, C.M., & Maisto, S.A. (1996). Behavioral assessment of substance abuse with co-occurring psychiatric disorder. *Cognitive and Behavioral Practice*, 3, 91-105.

211. Sklar, S., Annis, H.M., & Turner, N.E. (1977). Development and validation of the Drug-taking Confidence Questionnaire: A measure of coping self-efficacy. *Addictive Behaviors*, 22(5), 655-670.

212. Sklar, S.M., & Turner, N.E. (1999). Two brief measures for the assessment of coping self-efficacy among alcohol and other drug users. *Addiction*, 94, 723-729.

213. Carey, K. B., Correia, C.J., & Cocco, K.M. (1997). Reliability and validity of the Addiction Severity Index among outpatients with severe mental illness. *Psychological Assessment*, 9(4), 422-428.

214. Guyon, L., Landry, M., Borchu, S., & Bergeron, J. (1998). *L'évaluation des clientèles alcooliques et toxicomanes*. Québec : Les Presses de l'Universite Laval.

215. Landry, M., Guyon, L., Bergeron, J., & Provost, Geneviève, P. (in press). Dévelopment et validation d'un instrument d'évaluation de la toxicomanie chez les adolescents. *Alcoologie et Addictologie.*

216. Carey, K. (1997). Reliability and validity of the Time-Line Follow-Back Interview among psychiatric outpatients: A preliminary report. *Psychology of Addictive Behaviors*, 11(1), 26-33.

217. Prochaska, J. O., DiClemente, C.C., & Norcross, J.C. (1992). In search of how people change: Applications to addictive disorders. *American Psychologist*, 47, 1102-1114.

218. Carey, K.B., Maisto, S.A., Carey, M.P., & Purnine, D.M. (2001). Measuring readiness-to-change substance misuse among psychiatric outpatients: I. Reliability and validity of self-report measures. *Journal of Studies on Alcohol*, 62(1), 79-88.

219. Weisner, C. (1990). Coercion in alcohol treatment. Institute of Medicine (Ed.), *Broadening the Base of Treatment for Alcohol Problems*. Washington, DC: National Academy Press.

220. Wild, T.C. (1999). Compulsory substance-user treatment and harm reduction: A critical analysis. *Substance Use and Misuse*, 34(1), 83-102.

221. Karls, J.M., & Wandrei, K. E. (Eds.) (1994). *Person-in-Environment System: The PIE Classification System for Social Functioning Problems*. Washington, DC: NASW Press.

222. Karls, J.M., & Wandrei, K.E. (1994). *PIE Manual: Person-in-Environment System*. Washington, DC: NASW Press.

223. Irwin, E.A., & Penk, W.E. (1994). Using the PIE system to classify the problems of mentally ill people in recovery from addiction. In J.M. Karls & K.E. Wandrei (Eds.), *Person-in-Environment System: The PIE Classification System for Social Functioning Problems*. Washington, DC: NASW Press.

224. Endicott, J., Spitzer, R.L., Fliess, J.H., & Cohen, J. (1976). The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance. *Archives of General Psychiatry*, 33, 766-771.

225. Drake, R.E., & Wallach, M.A. (2000). Dual diagnosis: 15 years of progress. *Psychiatric Services*, 51(9), 1126-1129.

226. Miller, W.R. (1985). Motivation for treatment: A review with special emphasis on alcoholism. *Psychological Bulletin*, 98(1), 84-107.

227. Humphreys, K., Moos, R.H., & Finney, J.W. (1996). Life domains, Alcoholics Anonymous, and role incumbency in the 3-year course of problem drinking. *The Journal of Nervous and Mental Disease*, 184(8), 475-481.

228. Humpreys, K., Kaskutas, L.A., & Weisner, C. (1998). Relationhip of pre-treatment Alcoholics Anonymous affiliation with problem severity, social resources and treatment history. *Drug and Alcohol Dependence*, 49, 123-131.

229. Kushner, M.G., Sher, K.J., & Beitman, B.D. (1990). The relation between alcohol problems and the anxiety disorders. *American Journal of Psychiatry*, 147(6), 685-695.

230. Brady, K.T., & Lydiard, R.B. (1993). The association of alcoholism and anxiety. *Psychiatric Quarterly*, 64, 135-149.

231. Swendsen, J.D., & Merikangas, K. (2000). Comorbidity of depression and substance use disorders. *Clinical Psychology Review*, 20, 173-189.

232. Mullaney, J.A., & Trippett, C.J. (1979). Alcohol dependence and phobias: Clinical description and relevance. *British Journal of Psychiatry,* 135, 565-573.

233. Cox, B.J., Norton, G.R., Swinson, R.P., & Endler, N.S. (1990). Substance abuse and panic-related anxiety: A critical review. *Behavior Research and Therapy*, 28, 385-393.

234. Stravynski, A., Lamontagne, Y., & Lavallee, Y.J. (1986). Clinical phobias and avoidant personality disorder among alcoholics admitted to a rehabilitation setting. *Canadian Journal of Psychiatry*, 31, 714-718.

235. Brown, S.A., Inaba, R.K., Gillin, C., Schuckit, M.A., Stewart, M.A., & Irwin, M.R. (1995). Alcoholism and affective disorder: Clinical course of depressive symptoms. *American Journal of Psychiatry*, 152, 45-52.

236. Najavits, L.M., Weiss, R.D., Shaw, S.R., & Muenz, L. (l998). Seeking Safety: Outcome of a new cognitive-behavioral psychotherapy for women with postraumatic stress disorder and substance dependence. *Journal of Traumatic Stress,* 11, 437-456.

237. Skinner, H., & Allen, B.A. (1982). Alcohol dependence syndrome: Measurement and validation. *Journal of Abnormal Psychology*, 91, 199-209.

238. Beck, A.T., Eptstein, N., Brown, G., & Steer, R.A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56, 893-897.

239. Briere, J., & Runtz, M. (l989). The Trauma Symptom Checklist (TSC-33). *Journal of Interpersonal Violence,* 4*(2)* 151-163.

240. Scott, J. (1994). Cognitive therapy in depression. *Current Opinion in Psychiatry*, 7, 233-236.

241. Coryell, W., Endicott, J., & Winokur, G. (1992). Anxiety syndromes as epiphenomena of primary depression: Outcome and familial psychopathology. *American Journal of Psychiatry*, 149, 100-107.

242. Kessler, R.C., Nelson, C.B., McConagle, K.A., Edlund, M.J., Frank, R.G., & Leaf, P.J. (1996). The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 66, 17-61.

243. Brady, K. T., Killeen, T., Saladin, M. E., Dansky, B., & Becker, S. (1994). Comorbid substance abuse and posttraumatic stress disorder. *The American Journal on Addictions*, 3(2), 160-164.

244. Brown, P. J., Recupero, P. R., & Stout, R. (1995). PTSD substance abuse comorbidity and treatment utilization. *Addictive Behaviors*, 20, 251-254.

245. Miller, B., Downs, W., & Testa, M. (1993). Interrelationships between victimization experiences and women's alcohol use. *Journal of Studies on Alcohol*, (Supplement No. 11), 109-117.

246. Najavits, L. M., Gastfriend, D. G., Barber, J. P., Reif, S., Blaine, J., Frank, A., Crits-Christoph, P., & Thase, M. (1995). *Cocaine Dependence With and Without PTSD in the NIDA Cocaine Collaborative Study*. (Unpublished manuscript).

247. Cottler, L.B., Compton, W.M., Mager, D., Spitznagel, E.L., & Janca, A. (1992). Posttraumatic stress disorders among substance users from the general population. *American Journal of Psychiatry*, 149(5), 664-670.

248. Shuckit, M.A., Tipp, J.E., Anthenelli, R.M., Bucholz, K.K., Hesselbrok, V.M., & Nurnberger, J.I. (1996). Anorexia nervosa and bulimia nervosa in alcohol-dependent men and women and their relatives. *American Journal of Psychiatry*, 153, 74-82.

249. Murphy, G.E. (1992). *Suicide in Alcoholism*. New York: Oxford University.

250. Tousignant, M., & Payette, T. (1997). *Suicide et toxiomanies. Recension des écrits*. Montréal : Comité permanent de lutte à la toxicomanie.

251. LaBounty, L.P., Hatsukami, D., Morgan, S.F., & Nelson, L. (1992). Relapse among alcoholics with phobic and panic symptoms. *Addictive Behaviors*, 17, 9-15.

252. Pickens, R.W., Hatsukami, D.K., Spicer, J.W., & Svikis, D.S. (1985). Relapse by alcohol abusers. *Alcoholism: Clinical and Experimental Research*, 9, 244-247.

253. Marlatt, G.A., & Gordon, J. (Eds.) (1985). *Relapse prevention: Maintenance Strategies in the Treatment of Addictive Behaviors.* New York: Guilford Press.

254. Svanum, S., & McAdoo, W.G. (1989). Predicting rapid relapse following treatment for chemical dependence: A matched-subjects design. *Journal of Consulting and Clinical Psychology*, 57, 222-226.

255. Hodgins, D., el-Guebaly, N., & Armstrong, S. (1995). Prospective and retrospective reports of mood states before relapse to substance use. *Journal of Consulting and Clinical Psychology*, 63, 400-407.

256. Ormrod, J., & Budd, R. (1991). A comparison of two treatment interventions aimed at lowering anxiety levels and alcohol consumption amongst alcohol abusers. *Drug and Alcohol Dependence*, 27, 233-243.

257. Najavits, L.M., Weiss, R.D., & Shaw, S.R. (1997). The link between substance abuse and posttraumatic stress disorder in women: A research review. *American Journal on Addictions*, 6(4), 273-283.

258. Brown, P.J., Stout, R.L., & Gannon-Rowley, J. (l998). Substance use disorders-PTSD comorbidity: Patients' perceptions of symptom interplay and treatment issues. *Journal of Substance Abuse Treatment,* 14, 1-4.

259. Miller, W.R., Andrews, N.R., Wilbourne, P., & Bennett, M.E. (1998). A wealth of alternatives: Effective treatments for alcohol problems. In W.R. Miller (Ed.), *Treating Addictive Behaviors* (Second Edition). New York: Plenum Press, pp. 203-216.

260. Anthony, M.A., & Swinson, R.P. (1996). *Anxiety Disorders and their Treatment. A Critical Review of the Evidence-based Literature*. Ottawa: Health Canada, Cat. No. H39-388/1-1996E

261. Heimberg, R.G., Liebowitz, M.R., Hope, D.A., Franklin, F.R., Holt, C.S., Welkowitz, L.A., Juster, H.R., Campeas, R., Bruch, M.A., Cloitre, M., Fallon, B., & Klein, D.F. (1998). Cognitive-behavioral group therapy vs phenelzine therapy for social phobia: 12 week outcome. *Archives of General Psychiatry*, 55, 1133-1141.

262. Foa, E.B., Rothbaum, B.O., Riggs, D.S., & Murdock, T.B. (1991). Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counseling. *Journal of Consulting and Clinical Psychology*, 59, 715-723.

263. Chambless, D.L., & Hope, D.A. (1996). Cognitive approaches to the psychopathology and treatment of social phobia. In P.M. Salkovskis. (Ed.), *Frontiers of Cognitive Therapy*. New York: Guilford Press, pp. 345-382.

264. Hollon, S.D., DeRubeis, R.J., & Evans, M.D. (1996). Cognitive therapy in the treatment and prevention of depression. In P.M. Salkovskis. (Ed.), *Frontiers of Cognitive Therapy*. New York: Guilford Press, pp. 293-317.

265. Brown, R.A., Evans, D.M., Miller, I.W., Burgess, E.S., & Mueller, T.I. (1997). Cognitive-behavioral treatment for depression in alcoholism. *Journal of Consulting and Clinical Psychology*, 65, 715-726.

266. Najavatis, L.M., Wiess, R.D., & Liese, B.S. (1996). Group cognitive-behavioral therapy for women with PTSD and substance use disorder. *Journal of Substance Abuse Treatment*, 13, 13-22.

267. Najavits, L.M. (in press). *Seeking Safety: Cognitive-behavioral Therapy for PTSD and Substance Abuse*. New York: Guilford Press.

268. Frances, R.J., & Borg, L. (1993). Treatment of anxiety in patients with alcoholism. *Journal of Clinical Psychiatry*, 54, 5(suppl), 37-43.

269. Miller, N.S. (1995). Pharmacological management of major comorbid psychiatric disorders in drug and alcohol addictions. *Psychiatric Annals*, 10, 621-627.

270. McGrath, P.J., Nunes, N.V., Stewart, J.W., Goldman, D., Agosti, V., Ocepek-Welikson, K., & Quitlin, F.M. (1996). Imipramine treatment of alcoholics with major depression: A placebo-contolled trial. *Archives of General Psychiatry,* 53, 232-240.

271. Mason, B.J., Kocsis, J.H., Ritvo, C.E., & Cutler, R.B. (1996). A double-blind placebo-controlled trial of desipramine for primary alcohol dependence stratified on the presence or absence of major depression. *Journal of the American Medical Association*, 275, 761-767.

272. Mason, B.J., Salvato, F.R., Williams, L.D., Ritvo, E.C., & Cutler, R.B. (1999). A double-blind, placebo-controlled study of oral nalmefene for alcohol dependence. *Archives of General Psychiatry*, 56, 719-724.

273. Cornelius, J.R., Salloum, I.M., Ehler, J.G., Jarrett, P.J., Cornelius, M., Perel, J.M., Thase, M.E., & Black, A. (1997). Fluoxetine in depressed alcoholics: A double-blind, placebo-controlled trial. *Archives of General Psychiatry*, 54, 700-705.

274. Kranzler, H.R., Burleson, J.A., Korner, P., Del Boca, F.K., Bohn, M.J., Brown, J., & Leibowitz, N. (1995). Placebo-controlled trial of fluoxetine as an adjunct to relapse prevention in alcoholics. *American Journal of Psychiatry*, 152, 391-397.

275. O'Malley, S. (1998). *Naltrexone and alcoholism treatment. Treatment Improvement Protocol* (TIP) Series 28. U.S. Department of Health and Human Services. Public Health Services. Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.

276. O'Malley, S.S., Jaffe, A.J., Chang, G., Rode, S., Schotteneld, R., Meyer, R.E., & Rounsaville, B. (1996). Six-month follow-up of naltrexone and psychotherapy for alcohol dependence. *Archives of General Psychiatry*, 53, 217-224.

277. Maxwell, S., & Shinderman, M.S. (2000). Use of naltrexone in the treatment of alcohol use disorders in patients with concomitant major mental illness. *Journal of Addictive Diseases*, 19, 61-69.

278. Kranzler, H.R., Tenne, H., Penta, C., & Bohn, M.J. (1997). Targeted naltrexone treatment of early problem drinkers. *Addictive Behaviors*, 22, 431-436.

279. Trotter, C., Brady, K.T., Sonne, S.C., & Roberts, J.M. (l995). Sertraline treatment of comorbid posttraumatic stress disorder in women. *Journal of Clinical Psychiatry,* 56(11), 502-505.

280. Weiss, R.D., Najavits, L M., & Greenfield, S.F. (1999). A relapse prevention group for patients with bipolar and substance use disorders. *Journal of Substance Abuse Treatment*, 16(1), 47-54.

281. Strakowski, S.M., & Debbello, M.P. (2000). The co-occurrence of bipolar and substance disorders. *Clinical Psychology Review*, 20(2), 191-206.

282. Blanchard, J.J., Brown, S.A., Horan, W.P., & Sherwood, A.A. (2000). Substance use disorders in schizophrenia: Review, integration and a proposed model. *Clinical Psychology Review*, 20(2), 207-234.

283. Jerrell, J.M., & Ridgely, M.S. (1995). Evaluating changes in symptoms and functioning of dually diagnosed clients in specialized treatment. *Psychiatric Services*, 43(3), 233-238.

284. Stein, L.I., & Test, M.A. (1980). An alternative to mental hospital treatment. I: Conceptual model, treatment program, and clinical evaluation. *Archives of General Psychiatry*, 37, 392-397.

285. Drake, R.E., & Noordsky, B.J. (1994). Introduction to special section on ACT. *Psychiatric Services*, 46, 762-767.

286. Teague, G., Drake, R., & Ackerson, T. (1995). Evaluating use of continuous treatment teams for persons with mental illness and substance abuse. *Psychiatric Services*, 46, 690-701.

287. Hesselbrock, V., Stabenau, J., Hesselbrock, M., Mirkin, P., & Meyer, R. (1982). A comparison of two interview schedules: The Schedule for Affective Disorders and Schizophrenia-Lifetime and the National Institue for Mental Health Diagnostic Interview Schedule. *Archives of General Psychiatry*, 39, 674-677.

288. Skodol, A. E., Oldham, J. M., & Gallaher, P. E. (l999). Axis ll comorbidity of substance use disorders among patients referred for treatment of personality disorders. *American Journal of Psychiatry*, 156, 733-738.

289. Rounsaville, B.J., Weissman, M.M., Kleber, H.D., & Wilber, C.H. (l982). The heterogeneity of psychiatric diagnosis in treated opiate addicts. *Archives of General Psychiatry*, 39, 161-166.

290. Robins L.N., Helzer, J.E., Ratcliff, K.S., & Seyfried, W. (1982). Validity of the diagnostic interview schedule, version II: DSM-III diagnoses. *Psychological Medicine, 12(4), 855-70.*

291. Nace, E.P., Davis, G.W., & Gaspari, J.P. (1991). Axis II comorbidity in substance abusers. *American Journal of Psychiatry*, 148, 118-120.

292. Khantzian, E.J., & Treece, C. (1985). DSM-III psychiatric diagnosis of narcotic addicts: Recent findings. *Archives of General Psychiatry*, 42, 1067-1071.

293. Koenigsberg, H., Kaplan, R., Gilmore, M., & Cooper, A.M. (l985). The relationship between syndrome and personality disorder in DSM-III: Experience with 2,464 patients. *American Journal of Psychiatry*, 142, 207-212.

294. McCann, J.T., Flynn, P.M., & Gersh, D.M. (l992). MCMI-II diagnosis of borderline personality disorder: Base rates versus prototypic items. *Journal of Personality Assessment*, 58, 105-114.

295. Zanarini, M.C., Gunderson, J.G., Frankenburg, F.R., & Chauncey, D.L. (l989). The revised diagnostic interview for borderlines: Discriminating BPD from other Axis II disorders. *Journal of Personality Disorders*, 3, 10-18.

296. Inman, D.J., Bascue, L.O., & Skoloda, T. (l985). Identification of borderline personalities among substance abuse inpatients. *Journal of Substance Abuse and Treatment*, 2, 229-232.

297. Nace, E.P., Saxon, J.J., & Shore, N. (l983). A comparison of borderline and nonborderline alcoholic patients. *Archives of General Psychiatry*, 40, 54-56.

298. Oldham, J.M., Skodol, A.E., Kellman, H.D., Hyler, S.E., Doidge, N., Rosnick, L., & Gallaher, P. E. (1995). Comorbidity of Axis I and Axis II disorders. *American Journal of Psychiatry*, 152, 571-578.

299. Vaglum, S., & Vaglum, P. (l985). Borderline and other mental disorders in alcoholic female psychiatric patients: A descriptive outcome study. *Psychopathology*, 18, 50-60.

300. De Jong, C.A.J., van den Brink, W., Harteveld, F.M., & can der Wielen, E.G.M. (1993). Personality disorders in alcoholics and drug addicts. *Comprehensive Psychiatry*, 34, 87-94.

301. Links, P.S., Steiner, M., & Offord, D. (l988). Characteristics of borderline personality disorders: A Canadian study. *Canadian Journal of Psychiatry*, 33, 336-340.

302. Zimmerman, M. (1994). Diagnosing personality disorders: A review of issues and research methods. *Archives of General Psychiatry*, 51, 225-245.

303. Widiger, T. A. (l987). *Personality Interview Questionnaire ll* (PIQ ll). White Plains, NY: Department of Psychiatry, Cornell Medical Centre, Westchester Division.

304. Hyler, S.E., Oldham, J.M., Kellman, H.D., & Doidge, N. (l992). Validity of the personality diagnostic questionnaire-revised: A replication in an outpatient sample. *Comprehensive Psychiatry*, 33, 73-77.

305. Perry, J. (1982). *Borderline Personality Disorder Scale* (BPD scale). Cambridge, MA: Cambridge Hospital.

306. First, M.D., Gibbon, M., Spitzer, R.L., Williams, J.B.W., & Benjamin, L. (1996). *User's Guide for the Structured Clinical Interview for DSM-IV Axis II Personality Disorders* (SCID-II). New York: Biometrics Research Department, New York State Psychiatric Institute.

307. Loranger, A.W. (1995). *International Personality Disorder Examination (IPDE) Manual*. White Plains, NY: Cornell Medical Center.

308. Seivewright, N., & Daly, C. (1997). Personality disorder and drug use: A review. *Drug and Alcohol Review*. 16(3), 235-250.

309. Boudreault, L., Duhamel, D., Maltais, K., & Marceau, J.P. (1994). Les troubles de la personnalité dans le contexte de l'intervention en toxicomanie. P. Brisson. (Ed.), *L'usage des drogues et la toxicomanie, Volume II.* Montréal : Gaetan Morin., pp. 437-457.

310. Racine, S., & Nadeau, L. (1995). *Interaction entre les troubles de la personnalité et la toxicomanie*. Cahier de reserche du RISQ: Reserche et intervention sur les substances psychoactives - Québec, Montréal.

311. Marziali, E., & Monroe-Blum, H. (l994). *Interpersonal Group Psychotherapy for Borderline Personality Disorder*. New York: Basic Books.

312. Linehan, M.M., & Dimeff, L.A. (1995). *Extension of Standard Dialectical Behavior Therapy (DBT) to Treatment of Substance Abusers with Borderline Personality Disorder.* (Unpublished manuscript). University of Washington, Seattle.

313. Links, P. S., Heslegrave, R. J., Mitton, J. E., van Reekum, R., & Patrick, J. (l995). Borderline personality disorders and substance abuse: Consequences of comorbidity. *Canadian Journal of Psychiatry*, 40, 9-14.

314. Davenport, R.A. (1996). The psychological treatment of individuals dually diagnosed with chronic mental illness and substance abuse disorders. *Journal of Psychological Practice*, 2(2), 9020.

315. Nace, E. P. (l989). Personality disorder in the alcohol patient. *Psychiatric Annals*, 19, 256-260.

316. Ravndal, E., & Vaglum, P. (1991). Psychopathology, treatment completion and 5 year outcome. *Journal of Substance Abuse Treatment*, 15, 135-142.

317. Linehan, M. M., Schmidt, H., Dimeff, L. A., Craft, J. C., Kanter, J., & Comtois, K. A. (1999). Dialectical behavior therapy for patients with borderline personality disorder and drug-dependence. *American Journal of Addiction*, 8(4), 279-292.

318. Linehan, M. M. (1993). *Cognitive Behavioral Treatment of Borderline Personality Disorder*. New York: Guilford Press.

319. Linehan, M. M. (2000). The empirical basis of dialectical behavior therapy: Development of new treatments versus evaluation of existing treatments. *Clinical Psychology: Science and Practice*, 7, 113-119.

320. McMain, S., & Korman, L. (personal communication)

321. Fairburn, C.G., & Wilson, G. T. (Eds.) (1993). *Binge Eating: Nature, Assessment and Treatment*. New York: Guilford.

322. Schuckit, M.A., Tipp, J.E., Anthenelli, R. M., Bucholz, K. K., Hesselbrock, V. M., & Nurnnberger, J. I. (1996). Anorexia nervosa and bulimia nervosa in alcohol-dependent men and women and their relatives. *American Journal of Psychiatry*, 153, 74-82.

323. Holderness, C.C., Brooks-Gunn, J., & Warren, M. P. (1994). Co-morbidity of eating disorders and substance abuse: Review of the literature. *International Journal of Eating Disorders*, 16, 1-34.

324. Eckert, E. D., Goldberg S. C., Halmi, K. A., Casper, R. C., & Davis J. M. (1979). Alcoholism in anorexia nervosa. In R. W. Pickens & L.L. Heston. (Eds.) *Psychiatric Factors in Drug Abuse*. New York: Grune & Strattan, pp. 267-283.

325. Cantwell, D.P., Sturzenburger, S., Burroughs, J., Salkin, B., & Green, J. K. (1977) Anorexia nervosa: An affective disorder? *Archives of General Psychiatry*, 34, 1987-1093.

326. Bulik, C.M. (l987). Drug and alcohol abuse by bulimic women and their families. *American Journal of Psychiatry*, 144, 1604-1606.

327. Goldbloom, D.S., Naranjo, C.A., Bremmer, K.E., & Hicks, L.K. (l992). Eating disorders and alcohol abuse in women. *British Journal of Addiction*, 87, 913-920.

328. Hatsukami, D., Eckert, E., Mitchell, J.E., & Pyle, R.L. (l984). Affective disorders and substance abuse in women. *Psychological Medicine*, 14, 701-704.

329. Hudson, J.I., Pope, H.G. Jr., Yurgelin-Todd, D., Jopnas, J.M., & Frankengerg, F.R. (l987). A controlled study of lifetime prevalence of affective and other psychiatric disorders in bulimic outpatients. *American Journal of Psychiatry*, 44, 1283-1287.

330. Mitchell, J.E., Hatsulami, D., Eckert, E.D., & Pyle, R.L. (l985). Charcteristics of 275 patients with bulimia. *American Journal of Psychiatry*, 142, 482-485.

331. Pyle, R.L., Mitchell, J.E., & Eckert, E.D. (1981). Bulimia: A report of 34 cases. *Journal of Clinical Psychiatry*, 42, 60-64.

332. Hudson, J.L., Weiss, R.D., Pope, H.G.J., McElroy, S.K., & Mirin, S.M. (l992). Eating disorders in hospitalized substance abusers. *American Journal of Drug and Alcohol Abuse*, 18(1), 75-85.

333. Jonas, J.M., Gold, M.S., Sweeney, D., & Pottash, A.L.C. (l987). Eating disorders and cocaine abuse: A survey of 259 cocaine abusers. *Journal of Clinical Psychology*, 48, 47-50.

334. Lacey, J.H., & Moureli, E. (l986). Bulimic alcoholics: some features of a clinical sub-group. *British Journal of Addiction*, 81, 389-93.

335. Beary, M.D., Lacey, H.H., & Merry, J. (1986). Alcoholism and eating disorders in women of fertile age. *British Journal of Addiction*, 81, 685-689.

336. Peveler, R., & Fairburn, C. (1990). Eating disorders in women who abuse alcohol. *British Journal of Addiction*, 85, 1633-1638.

337. Vanderecycken, W. (1990). The addiction model in eating disorders: Some critical remarks and a selected bibliography. *International Journal of Eating Disorders*, 9, 95-101.

338. Wilson, G. T. (1991). The addiction model of eating disorders: A critical analysis. *Advances in Behavior Research and Therapy*, 13, 27-72.

339. Jonas, J.M. (1990) Do substance-abuse, including alcoholism, and bulimia covary? In L. D. Reid (Ed.), *Opioids, Bulimia, and Alcohol Abuse and Alcoholism*. New York: Springer-Verlag, 247-258.

340. Johnson, C., Lewis, C., & Hagman, J. (1984). The syndrome of bulimia: Review and synthesis. *Psychiatric Clinics of North America*, 7, 247-273.

341. Krahn, D. D. (1991). The relationship of eating disorders and substance abuse. *Journal of Substance Abuse*, 3, 239-253.

342. Jonas, J. M. (1989). Eating disorders and alcohol and other drug abuse: Is there an association? *Alcohol Health and Research World*, 13, 267-271.

343. Courbasson, C. M. A., Smith, P. D., & Cleland, P. A. (1999). *Eating Disorders in Men and Women with Substance Abuse Problems*. (Unpublished Manuscript). Toronto: Centre for Addiction and Mental Health.

344. Pugliese, M.T., Lifshitz, F., Grad. G., Fort. P., & Marks-Katz, M. (1983). Fear of obesity: A cause of short stature and delayed puberty. *New England Journal of Medicine*, 309, 513-518.

345. Mitchell, J. E., Pyle, R., Eckert, E. E., Hatsukami, D., & Soll, E. (1990). The influence of prior alcohol and drug abuse problems on bulimia nervosa treatment outcome. *Addictive Behaviors*, 15, 169-173.

346. Strasser, T. J., Pike, K. M., & Walsh, B. T. (1992). The impact of prior substance abuse on treatment outcome for bulimia nervosa. *Addictive Behaviors*, 17, 387-396.

347. Katz, J. L. (1990). Eating disorders: A primer for the substance abuse specialist. 2. Theories of etiology, treatment approaches, and considerations during co-morbidity with substance abuse. *Journal of Substance Abuse Treatment*, 7, 211- 217.

348. Sutherland, L. A., Weaver, S. N., McPeake, J. D., & Quimby, C. D. (1993). The Beech Hill Hospital eating disorders treatment program for drug dependent females: Program description and case analysis. *Journal of Substance Abuse Treatment*, 10, 473-481.

349. Yeary, J. R., & Heck, C. L. (1989). Dual diagnosis: Eating disorders and psychoactive substance dependence. *Journal of Psychoactive Drugs*, 21, 239-249.

350. Dublin, New Hampshire. (l993). The Beech Hill hospital eating disorders treatment program for drug dependent females: Program description and case analysis. *Journal of Substance Abuse Treatment*, 10, 473-481.

351. Marcus, R.N., & Katz, J. (1990). Inpatient care of the substance-abusing patient with a concomitant eating disorder. *Hospital and Community Psychiatry*, 41, 59-63.

352. Rush, B.R., & Ogborne, A.C. (1991). Program logic models: Expanding their role and structure. *Canadian Journal of Program Evaluation*, 6(2), 93-105.

353. Morrissey, J.P., Calloway, M., Bartko, W.T., Ridgely, S., Goldman, H.H., & Paulson, R.I. (1994). Mental health authorities and service system change: Evidence from the Robert Wood Johnson Foundation program on chronic mental illness. *Millbank Quarterly*, 72(1), 49-80.

354. Shore, M.F., & Cohen, M.D. (1990). The Robert Wood Johnson Foundation program on chronic mental illness: An overview. *Hospital and Community Psychiatry*, 41(11), 1212-1216.

355. Cocozza, J.J. (2000). *ACCESS Program Implementation Study*. Paper presented at the annual meeting of the American Evaluation Association, Honolulu, Hawaii.

356. Minkoff, K., Rossi, A., Ajilore, C., & Cahill, C. (1997). *Center for Mental Health Services Managed Care Initiative: Clinical Standards and Workforce Competencies Project. Annotated Bibliography*. Rockville, MD: Center for Mental Health Services.

357. Baker, F. (1991). *Coordination of Alcohol, Drug Abuse and Mental Health Services.* Technical Assistance Publication Series Number 4. Rockville, MD: US Department of Health and Human Services.

358. Spaniol, L., Zipple, A., & Cohen, B. (1991). Managing innovation and change in psychosocial rehabilitation: Key principles and guidelines. *Psychosocial Rehabilitation Journal, 14*(3), 27-38.

359. Skinner, H. (in press, 2001). *Promoting Health Through Organizational Change*. Boston: Allyn and Bacon Publishers.

360. Lord, J., Ochaka, J., Czarny, W., & MacGillvary, H. (1998). Analysis of change within a mental health organization: A participatory approach. *Psychiatric Research Journal*, 21(4), 327-339.

361. Goering, P., Wasylenki, D., & Durbin, J. (2000). Canada's Mental Health System. *International Journal of Law and Psychiatry*, 23(3-4), 345-359. .

362. Everett, B. (1994). Something is happening: The contemporary consumer and psychiatric survivor movement in historical context. *Journal of Mind and Behavior*, 15(1&2), 55-70.

363. Lin, E., & Goering, P. (1998). *The Utilization of Physician Services for Mental Health in Ontario*. Report for the Institute for Clinical Evaluative Sciences. Toronto: Clarke Institute of Psychiatry.

364. Kates, N., Craven, M., Webb, S., Low, J., & Perry, K. (1992). Case reviews in the family physician's office. *Canadian Journal of Psychiatry*, 37(2), 2-6.

365. Clarke Consulting Group. (1997). *Towards a Reformed System of Mental Health Care in Southwest Ontario: Requirements for Schedule 1 facilities*. Prepared for Southwest Region Mental Health Planners Work Group, Toronto: Clarke Institute of Psychiatry.

366. Motiuk, L.L., & Poporino, F.J. (1991). *The Prevalence, Nature and Severity of Mental Health Problems Among Federal Male Inmates in Canadian Penitentiaries*. Ottawa: Research and Statistics Branch, Correctional Service Canada.

367. Health Canada (1999). *Profile of Substance Abuse Treatment and Rehabilitation in Canada*. Ottawa: Ministry of Public Works and Government Services, Cat. #H39-439/1998E

368. Rush, B.R., & Ogborne, A.C. (1992). Alcoholism treatment in Canada: History, current status and emerging issues. In H. Klingeman, J.P. Takala & G. Hunt (Eds.), *Cure, Care or Control: Alcoholism Treatment in Sixteen Countries*. New York: State University of New York Press, pp. 253-267.

369. Ogborne, A.C., Smart, R.G., & Rush, B.R. (1998). The treatment of drug-related problems in Canada: controlling, caring, and curing. In H. Klingemann & G. Hunt (Eds.), *Drug Treatment Systems in an International Perspective: Drugs, Demons and Delinquents*. Beverly Hills, CA: Sage Publications, pp. 20-32.

370. Project MATCH. (1998). Matching alcoholism treatments to client heterogeneity: Project MATCH three year drinking outcomes. *Alcoholism: Clinical and Experimental Research*, 22, 1300-1311.

371. Project MATCH. (1998). Matching alcoholism treatments to client heterogeneity: Treatment main effects and matching effects on drinking during treatment. *Journal of Studies on Alcohol*, 59, 631-639.

372. Sobell, L.C., Sobell, M.B., & Toneatto, T. (1992). Recovery from alcohol problems without treatment. In N. Heather, W.R. Miller & J. Greenley (Eds.), *Self-control and Addictive Behaviors*. New York: Maxwell Macmillan, pp. 198-242.

373 Grant, B.F. (1997). Barriers to alcoholism treatment: Reasons for not seeking treatment in a general population sample. *Journal of Studies on Alcohol*, 58, 365-371.

374. Rush, B., Hobden, K., Aitken Harris, J., & Shaw Moxam, R. (2000). *Client Outcomes within the Ontario Substance Abuse Treatment System: Results of a Provincial Pilot Study*. Toronto: Centre for Addiction and Mental Health.

375. Marlatt, A. (1998). *Harm Reduction: Pragmatic Strategies for Managing High-risk Behaviors*. New York: Guilford Press.

376. Ontario Substance Abuse Bureau. (2000). *Admission and Discharge Criteria*. Toronto: Ontario Ministry of Health.

377. Gordis, L. (1996). *Epidemiology*. Philadelphia, PN: W.B. Saunders Co.