A Provincial Anxiety Disorders Strategy

Prepared by:

The Provincial Strategy Advisory Committee for Anxiety Disorders

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Foreword

Historically the disability and costs associated with mental health problems have been underestimated. This is particularly the case with anxiety disorders, the associated burden of disease now understood to be comparable to other major mental health conditions. Anxiety disorders impose a substantial cost on society and markedly compromise the quality of life for those affected.

The Provincial Government has taken a progressive step in appointing the Provincial Anxiety Disorders Strategy Advisory Committee to develop a framework and recommendations to address the prevention and management of anxiety disorders in British Columbia. In developing this strategy, the Advisory Committee became aware of the limited public sector response to anxiety disorders and the difficulty many individuals with serious conditions have obtaining treatment services. While innovative treatment programs can be found in a few communities throughout the province, these have arisen more through the initiative of individual local practitioners than through a coordinated effort to service this group of mental health disorders. Similarly prevention efforts that intervene "upstream" in order to reduce "downstream" services and costs have been only sporadically pursued, if at all.

This state of affairs is not necessarily unique to British Columbia. One of the strategy's external reviewers, international anxiety disorders expert, Dr. Richard Swinson, noted that this report could "have well been written about the conditions in any province in the country." Dr. Swinson commended the present strategy as a strong, coherent and needed framework for structured change.

The strategy outlined in the report identifies a series of universal, targeted and clinical interventions that together represent a comprehensive approach to improve the health and social outcomes for anxiety sufferers. The strategy, intended to guide provincial and regional efforts, is not a detailed blueprint for change. Implementation of the strategy will require continued leadership, policy direction and support from the provincial government and a commitment from regional health authorities to ensure access to a high standard of care for individuals with anxiety disorders irrespective of their place of residence.

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Chair
Provincial Anxiety Disorders Strategy Advisory Committee

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Executive summary

Anxiety disorders are the most prevalent class of mental illness, affecting approximately one in every ten adults, yet the chronic and disabling nature of these conditions is seriously underestimated. All too frequently, symptoms of anxiety disorders are discounted as normal by-products of life stress and not understood in terms of their distinct underlying psychopathology. As a result, anxiety disorders have been under-diagnosed and under-treated in British Columbia, resulting in considerable unmet need, unnecessary disability, and over-utilization of non-psychiatric medical services. It is now recognized that anxiety disorders are associated with a high disease burden, representing substantial costs to society, both in human and fiscal terms. The Provincial Government's renewed focus on *Mental Health Plan* implementation and new priorities forthcoming from the Minister of State for Mental Health provide a fitting context in which to examine the public sector response to anxiety disorders.

This report describes a strategy to address the prevention and management of anxiety disorders in British Columbia. The strategy has been developed by the Provincial Anxiety Disorders Strategy Advisory Committee, appointed by the Government in the fall 2001. Its intent is to identify the key elements of a cost-effective approach to the management of these disorders for provincial and regional health authorities that ultimately will improve health and social outcomes for anxiety sufferers.

In developing the strategy, the committee acknowledged that anxiety disorder cases range from mild to severe; that anxiety disorders are distinct diagnostic entities that are highly responsive when established treatment protocols are applied; that there are very few health service providers in the province trained to deliver evidence-based treatments for anxiety disorders; that primary care has played, and will continue to play, a central role in the provision of care to anxiety sufferers; that there has been a failure in BC to recognize that approximately 1% of the population, or 39,000 adults, are highly disabled by severe anxiety disorders and the numbers affected at this level of severity are more than double the numbers of schizophrenia cases in the province; and that very little attention has been given to early interventions which have the potential to reduce the incidence of anxiety disorders and prevent the development of chronic and severe conditions.

The strategy describes a series of recommended programs designed to achieve four goals: improved awareness, improved accessibility to information and service, improved appropriateness of care; and improved outcomes for anxiety disorder sufferers. As such, the recommended strategy incorporates a mix of universal, targeted, and clinical interventions and thereby aligns an anxiety disorders service spectrum with different levels of population need.

Ten strategy components are outlined that correspond to the range of needs within:

- The general public,
- populations at risk for anxiety disorders,
- individuals with mild anxiety disorders, and
- individuals with chronic or severe anxiety disorders.

Recommended components include:

Awareness Raising Strategies that enhance understanding among the general public that anxiety disorders are common illnesses that can be effectively diagnosed and treated.

Universal School-Based Interventions designed to enhance the psychological competence of children and adolescents and prevent or delay the onset of anxiety disorders.

Targeted School-Based Interventions which identify and intervene (through administration of brief therapies or referral to mental health specialists) with adolescents most at risk for development of serious anxiety disorders.

Web-based Education and Support designed to provide psycho-educational services to adults with early anxiety symptoms regarding types of anxiety disorders and to impart basic cognitive, behavioural and lifestyle strategies.

Web-based Self-Diagnostic and Self-Help Programs that allow consumers to assess the nature and severity of their anxiety symptoms using interactive diagnostic questionnaires and direct them to a structured self-administered therapeutic program for symptom management.

Community-Based Self-Help Therapy Groups which offer an efficient means of supplementing and expanding the formal mental health care system for uncomplicated anxiety conditions. These consumer-led groups represent a means to deliver empirically validated self-help methods to control symptoms and improve quality of life.

Enhanced Primary Care Services including a range of provider support mechanisms that meet the needs and preferences of primary care physicians such as clinical decision-support, case consultation with anxiety specialists, training in physician-delivered brief CBT, computer-assisted patient resources developed for general practice settings, and shared-care initiatives.

Expanded Community-Mental Health Programs through the provision of training to community mental health workers in standardized CBT protocols for different anxiety disorders and through access to expert support for difficult cases through identified provincial or regional specialists.

Specialized Regional Anxiety Services spawned over the next three years from a provincial centre of expertise with the continuing capacity to export expertise to care for severe anxiety cases across the province.

Day Programs for Obsessive-Compulsive Disorders to provide intensive intervention in the form of day care treatment for severe cases. The costs of a day program could be offset by reductions in hospitalizations now associated with OCD cases.

The strategy links the above components conceptually and pragmatically and thus, represents a comprehensive approach to reducing the burden of suffering associated with anxiety disorders. Certain components of the strategy are contingent initially upon the existence of a provincial hub of anxiety disorders expertise that will help build and maintain regional capacity. In addition, the success of the recommended clinical strategy components rests upon expanded training opportunities for practitioners in evidence-based interventions. Educational support for evidenced-based practices within our universities is considered essential to increasing the capacity of graduates to deliver appropriate, efficacious treatments and to advancing the shift to outcome-oriented mental health services in British Columbia. The success of the strategy will also be enhanced though realizing the strong potential for innovative technologies to overcome geographic restrictions and ensure consistent quality standards in the delivery of anxiety treatment services.

While not intended as a detailed implementation plan, strategy recommendations are described with attention to key planning parameters including service reach and intended results. In addition, the committee has assigned priority ratings to each recommendation to further inform implementation planning. Finally, suggestions for monitoring the progress toward strategic goals are presented.

To ensure that the directions suggested in the strategy reflect the accumulated knowledge base and known best practices, the Advisory Committee sought external reviews from two experts in anxiety disorders. Both reviewers endorsed the strategy as a sound and comprehensive approach in line with current trends internationally

1. Purpose

The purpose of this strategy is to achieve an appropriate, informed stance on anxiety disorders as a significant mental health problem and to identify the key elements of a cost-effective approach to improve outcomes in the management of these disorders for provincial and regional health authorities. While the primary focus of the strategy is on adults, the fact that many anxiety disorders develop during childhood and adolescence and continue into adulthood as chronic conditions necessitates a broader scope of focus.

2. Background

In 1998, the Provincial Government released its *Mental Health Plan*.[1] The Plan committed to enhanced services and supports for adults with the serious mental illness. Also emphasized was a focus on early intervention and treatment in addition to implementation of best practices, in an effort to improve health and social outcomes for mental health consumers.

Subsequent to the release of the *Plan*, the Ministry of Health operationally defined "serious mental illness" through its *Criteria for Identifying Persons with the Highest Priority for Service.* These criteria indicated that the highest priority for care should be given to individuals whose mental illnesses cause a high degree of disability. Unfortunately, many planners and providers of service understood the direction of the *Plan* and the service criteria to mean a narrow focus on persons with psychotic disorders (i.e., schizophrenia, bipolar disorder). This perspective failed to acknowledge that other disorders, such as anxiety and depression, can exist in severe forms and profoundly interfere with the ability to lead a normal and productive life.

This concern was addressed in a policy bulletin issued by the Mental Health Evaluation and Community Consultation Unit (Mheccu) entitled *Severe Anxiety Disorders*.[2] The bulletin emphasized the high prevalence of anxiety disorders, the disabling nature of severe conditions, and the substantial associated economic burden. Further, it noted that while only a small proportion of anxiety sufferers are likely to experience severe disorders, because of a high overall prevalence, the number of anxiety related serious mental illness cases considerably exceeds the number of persons with schizophrenia in the province.[a] However, due to the restricted service focus within many publicly funded mental health programs, the majority of these cases are unable to access effective treatment.

In response to these concerns, the Ministry of Health established the Provincial Anxiety Disorders Strategy Advisory Committee (see Appendix A for membership). The committee's role was to examine innovative practices nationally and internationally, and to review the evidence base for cost-effective interventions toward development of a provincial strategy for the management of anxiety disorders. Also considered were the views of key stakeholders within the regional Health Authorities and the availability of services for anxiety patients across the province. Critical input to the strategy was also provided by two international anx-

a. This report necessarily makes comparisons with other major mental health disorders. It is not the Advisory Committee's intent, however, to detract from the seriousness of these conditions or their respective needs for resources and services but rather to emphasize the comparable health, social and fiscal impact of anxiety disorders.

iety disorder experts, Dr.Richard Swinson, Morgan Firestone Chair and Professor, Department of Psychiatry and Behavioural Neurosciences, McMaster University and Dr. David Clark, Head, Department of Psychology, Institute of Psychiatry, University of London, and Head, Centre for Anxiety Disorders, Maudsley Hospital, London, England. The comments of the expert reviewers are provided in Appendix B.

Early in the process, the Advisory Committee recognized the need to ensure a consistency between the provincial anxiety strategy and both the provincial Government's current priorities with respect to initiatives within its renewed focus on *Mental Health Plan* implementation and new priorities forthcoming from the Minister of State for Mental Health and the Minister's Advisory Council on Mental Health.[3] Hence, the strategy addresses the provision of appropriate care to those with serious anxiety disorders, early intervention approaches for those with less serious disorders, and public education and awareness needs within the general public. As such, it reflects the need for high-level structural changes in our approach to anxiety disorders. Throughout the strategy, the central role of primary care physicians is emphasized as the major provider of treatment to individuals with anxiety disorders.

3. Rationale for the Proposed Strategy

Anxiety disorders are common and are characterized by a variety of syndromes including panic disorder (with and without agoraphobia), obsessive-compulsive disorder (OCD), social phobia, generalized anxiety disorder, specific phobia, and post-traumatic stress disorders. These disorders are briefly described in Table 1. While the majority of anxiety sufferers experience mild forms of these disorders, a substantial number will experience unrelenting and disabling symptoms that seriously compromise the ability to work, study or maintain adequate psychosocial functioning. A detailed paper examining the social and economic impact of anxiety disorders and the need for an improved health sector response is appended (Appendix C). This paper was prepared by Mheccu in 2001 at the request of the Ministry of Health Services to further inform an understanding of service needs in this area. The paper provides an in depth examination of key issues and been helpful to the Advisory Committee in framing the present strategy.

It is apparent that individuals with anxiety disorders in most communities in the province do not have access to specialized treatment services. Moreover, in these communities, there is a lack of standardized, empirically supported treatment protocols in use to support practitioners who do encounter anxiety cases. In the absence of these protocols, mental health generalists commonly treat anxiety disorders as exaggerated responses to stress and deliver generic stress reduction techniques or suggest simple lifestyle changes, neither of which significantly improve outcomes in serious anxiety disorders.

The following sections examine the extent of anxiety disorders in BC, the degree of unmet need, the associated social and economic impact, and the availability and costs of effective interventions to treat anxiety disorders, and patient preferences with respect to choice of treatment.

Table 1

TYPES OF ANXIETY DISORDERS

- *Panic disorder (PD) with and without agoraphobia (PDA)*

  Both conditions involve recurrent unexpected panic attacks characterized by intense physical symptoms, persistent worry about future attacks and the implications of these attacks (i.e., dying or losing bodily control). When associated with agoraphobia, there is marked avoidance of situations and environments in which panic attacks might occur.

- *Obsessive-compulsive disorder (OCD)*

  OCD Is associated with repetitive, intrusive, irrational thoughts that the individual is unable to control. These obsessive thoughts cause extreme anxiety that can only be relieved through compulsive behaviours or rituals. The time-consuming nature of the rituals causes significant impairment of day-to-day functioning.

- *Social phobia*

  The defining feature of social phobia is an exaggerated fear and discomfort associated with social or performance situations. The attention or scrutiny of others, along with the fear of embarrassment or humiliation, provokes intense anxiety and distress and leads to avoidance of social situations.

- *Generalized anxiety disorder (GAD)*

  GAD is a syndrome in which excessive worry and apprehension regarding a variety of events and activities predominate during most days over at least a six-month period. Like other anxiety disorders, GAD is accompanied by symptoms of physical agitation including muscle tension, insomnia and difficulty concentrating. It is a pervasive rather than focused anxiety disorder.

- *Specific phobia*

  These disorders involve heightened fear in response to the presence, or anticipation, of a specific object or situation such as heights, flying, snakes, injections, etc. Although the fear is often recognized as unreasonable, exposure to the feared object produces an intense anxiety reaction that may take the form of a panic attack. Avoidance behaviour is common and in severe cases social and occupational functioning may be restricted.

- *Posttraumatic stress disorder (PTSD)*

  PTSD occurs subsequent to the experience of a highly traumatic event in which actual or threatened death or serious injury to self or others was involved and caused marked fear, horror and/or helplessness. The traumatic event is re-experienced through intrusive images or memories, recurrent dreams, or feelings that the event is recurring. Symptoms must cause serious distress or interference with functioning for at least one month to meet diagnostic criteria.

Estimation of Need within BC's Population

Several epidemiology studies have established that anxiety disorders affect more of the general population than any other psychiatric disorder, the end result being that at any given point within a 12-month period, over one in 10 individuals will exhibit symptoms of sufficient magnitude to meet diagnostic criteria for a clinical anxiety disorder.[4,5,6,7] Andrews and colleagues[8] have broken out the prevalence rate of anxiety disorders by severity and suggest that 9.2% of the population will suffer from mild anxiety disorders, 2.2% will suffer from chronic conditions with symptoms present for at least a year and some associated impairment, and 1.2% will suffer from serious conditions with significant disability. For the purposes of estimating the size of the affected adult population in the province, Table 2 applies these prevalence rates to BC population figures. Approximately one-quarter of sufferers fall into the chronic or serious category suggesting that over 100,000 adults experience functional impairment related to anxiety disorders.

Table 2

PREVALENCE AND ESTIMATED CASES OF ANXIETY DISORDERS BY SEVERITY

	BC Population Forecast 2002*	Mild Disorders 9.2%	Chronic Disorders 2.2%	Serious Disorders 1.2%	Total Affected Population
Age 19 +	3,207,800	295,118	70,572	38,494	404,184

*Source: BC Population Forecast, 1994-2021: BC Stats.

The estimated number of anxiety cases in children and adolescents between the ages of 5 and 19 years is 54,707, based on a 7% overall prevalence rate which represents the mid-point in the range of rates from published epidemiological studies.[9] Rates for different levels of severity have not been established for youth.

Within the mild category of anxiety disorders, are a large group of persons with specific phobias, many of whom may not require treatment given the ability to avoid the feared object/situation without extensive disruption of normal routines. The most debilitating conditions within the severe category are most likely to include panic disorder, obsessive-compulsive disorder, and social phobia. Post-traumatic stress disorder (PTSD) may also exist in severe forms, in relation to the emotional impact of the precipitating traumatic event. Severe anxiety disorders are very often accompanied by other co-morbid psychiatric conditions such as depression[10] and substance abuse.[11] Further, the US Surgeon's General Report[12] claims that the presence of anxiety disorders in suicide is underestimated with panic disorder and agoraphobia, in particular, being associated with increased suicide attempts. Unfortunately, comorbid anxiety conditions may not be recognized or else considered symptomatic of the "other" disorder and hence not treated. Evidence suggests that the presence of anxiety disorders compromise the effects of treatment in comorbid conditions and increase the risk of relapse.[13]

An Unacceptable Degree of Unmet Need

Examination of treatment prevalence among persons with anxiety disorders has found that less than one in five cases meeting diagnostic criteria, in large community samples, are in receipt of services from the mental health specialty sector.[14] A Health Canada commissioned critical review of the anxiety treatment literature[15] noted that individuals with anxiety disorders are more likely to seek help from the primary health care sector although their psychological problems may not be the reason for the consultation. There

are claims that half of all cases go undetected in primary care and up to one-third are misdiagnosed.[16] Anxiety patients are more frequent users of the health care system than the general population. A study examining health care utilization based on data from the Mental Health Supplement to the Ontario Health Survey found that persons with anxiety disorders were much more likely to have seen a general practitioner six or more times in the previous year and to have visited an emergency department than persons with no psychiatric disorder.[17]

It is not uncommon for anxiety sufferers to present to general practitioners with unexplained somatic symptoms[18] and undergo diagnostic workups that can include unnecessary and costly laboratory tests, imaging studies, and cardiology or other specialist consults. In fact, more than half of the societal costs due to anxiety disorders are those associated with repeated and ineffectual use of health care services.[19]

Although efficacious treatments, both pharmacological and cognitive-behavioural, have been established for anxiety disorders, only a minority who seek treatment receive effective interventions.[20] Research suggests that many practitioners in settings other than specialized anxiety disorder clinics lack the training to appropriately diagnosis anxiety disorders [e.g.21] or deliver evidence-based treatments.[22,23] A study examining the quality of care for anxiety disorders in the United States,[24] found that overall only 30% received appropriate treatment. Access to appropriate treatment is limited by the availability of experienced cognitive-behavioural therapists[25] and physicians with training in the management of anxiety disorders.

In British Columbia, the ability to offer effective and efficient psychological treatments depends greatly on the availability of practitioners trained in evidence-based diagnostic and treatment methodologies. This starts with a requirement to help our universities evolve toward an evidence-based culture within their professional training programs in the mental health area. Currently such professional training programs frequently graduate practitioners schooled in theories that are untested in terms of treatment efficacy. These practitioners are at a significant disadvantage in their ability to deliver effective treatments. Moreover, it is recognized that the availability of evidence-based treatments within the regional health authorities also depends upon quality control practices in hiring and supervision.

Patients with anxiety disorders seek services through a variety of providers throughout the province. Sources of information about service utilization include Medical Service Plan (MSP) claims, hospital separations, community mental health centre records (CPIM), and data from the Anxiety Disorders Unit (ADU) at University Hospital. Unfortunately, ICD-9 codes used for MSP and hospital data do not separate out anxiety from the broader category of neurotic disorders which includes a variety of other psychiatric conditions. However, it is known that only very severe anxiety disorders, often those that coexist with depression, require hospitalization. An examination of the number of acute-care separations for OCD, or OCD in combination with depression, identified 113 cases accounting for 1598 acute-care days in 1999/00.

With respect to anxiety cases treated through community mental health programs, CPIM recorded 1595 client admissions for anxiety disorders in 2000/2001. However, this figure is known to underestimate the number of cases in so far as the two largest health authorities (HA), Vancouver/Richmond and Capital Health Region, have not submitted CPIM data for some time. Yet, were this figure to be doubled or even tripled, it would still mean that only a small proportion of chronic and serious cases are in receipt of services through the community mental health system.

The Anxiety Disorders Unit (ADU) at University Hospital in Vancouver, a specialized outpatient service dedicated to the treatment of anxiety disorders, is also a source of utilization data. While the ADU primarily serves clients in the lower mainland area, a substantial number of its approximately 500 referrals per year are from other regions. In the year 2000-2001 there were 1,561 patient visits to the ADU (For a more detailed description, see page 12.)

Given the problems in obtaining accurate estimates of physician (primary care, psychiatry, or other specialties) visits or hospitalizations related to anxiety disorders and given the incomplete nature of community mental health data, it is very difficult to ascertain the incidence of treatment among anxiety sufferers in BC. Consumer input through the Anxiety Disorders Association of BC and other channels, however, has indicated considerable difficulty obtaining publicly funded anxiety disorder treatment even when symptoms have become disabling. These reports are corroborated by regional mental health managers and service providers, who note that while anxiety treatment programs do exist outside of the lower mainland (see page 13), there is extremely limited treatment capacity within these programs, they may be offered only a few times a year and for only certain types of anxiety disorders. The lack of consistently available treatment for this clinical group is thought due, in part, to the perceived inconsistency expressed by some mental health personnel, between the need for anxiety treatment services and the Mental Health Plan focus on other serious psychiatric disorders.

It should be noted that the poor tracking of utilization for anxiety disorders is in contrast to tracking of other mental health disorders such as schizophrenia and bipolar disorder, both of which are reported as indicators of access in the Mental Health Service System Performance Report.[26] These data indicate very high levels of access when all service contacts are combined and taken as a percentage of the estimated number of individuals within each of these diagnostic groups.

Notwithstanding the lack of accurate information through available administrative data sources, the Advisory Committee concluded that there is sufficient reason to believe that findings elsewhere — that persons with anxiety disorders are underserved relative to other mental health patient groups — are applicable to BC and that there is evidence, in particular, that many of those with chronic and severe conditions fail to receive appropriate care.

High Burden of Disease and Substantial Costs to Society

Over the last decade, the immense health and social impact attributable to mental illness has become apparent. The Global Burden of Disease Study[27] found that psychiatric disorders, including suicide, account for 15% of disability-adjusted life years associated with all illnesses worldwide. Because of a high base prevalence, the disease burden associated with anxiety is extensive. A recent review of anxiety disorders research reported a consistent picture of marked impairment in psychosocial functioning and quality of life among affected individuals.[28]

There have been no investigations of the economic impact of anxiety disorders in Canada. One American study estimated the lifetime effect on income of individuals with anxiety disorders in relation to other disorders.[29] Anxiety disorders were found to be the most costly, accounting for nearly one-third of the total economic burden, higher than any other mental disorder. A subsequent study calculated total direct and indirect costs of anxiety disorders in the US to be over $40 billion dollars annually.[30] Over half of these costs was due to non-psychiatric medical treatment costs, verifying earlier reports regarding the extensive use of general medical services by this patient group. Other reported costs included 31% for psychiatric treatment costs, 10% in workplace costs, 3% in mortality costs, and 2% for pharmaceutical costs. Medical service utilization has been found to be significantly higher for comorbid conditions, particularly those that coexist with generalized anxiety disorder.[31]

In taking account of burden of disease considerations for mental health care in Australia, Andrews[32] reasons that:

> If we were to spend our limited resources rationally then we might well follow Bobadilla's dictum, and deploy resources according to the burden of each disease, and according to the cost effectiveness of treatment. Let us look at two examples, anxiety disorders and schizophrenia, simply because they provide such a contrasting picture. The anxiety disorders are the commonest of all mental disorders with a twelve-month prevalence of 17%. Not all anxiety disorders disable and the total burden of disease is only 2.3%. Schizophrenia is associated with a high level of disability, but being a rare disease, it accounts for a similar burden of disease as the anxiety disorders. At present, NSW State Health services allocate $100 million to the management of schizophrenia and about $1 million to the management of anxiety disorders.

Effective and Efficient Treatments do Exist

There is overwhelming expert opinion that effective interventions have been established for treatment of all of the major anxiety disorders. Pharmacological interventions for anxiety disorders include primarily benzodiazepines and anti-depressants. Benzodiazepines, popular for their rapid anti-anxiety action, are now less commonly prescribed for many anxiety disorders because of the potential for dependence, withdrawal reactions on termination, and interference with habituation, which is critical to the success of exposure therapy. The anti-panic and anti-obsessional effects of many antidepressants have been responsible for their increased use in the treatment of anxiety disorders.[33] The SSRI (selective serotonin re-uptake inhibitors) medications are the most widely used of the anti-depressants for anxiety given their effectiveness and ability to be well tolerated by most patients (cite surgeon general review). In severe OCD cases, low-dose anti-psychotics are often added to the medication regime, but the effectiveness of such combinations is controversial.

Extensive empirical support for cognitive-behavioural therapy in the treatment of anxiety disorders is well documented. There has been considerable debate regarding the relative effectiveness of medication versus psychosocial interventions.[34] CBT is more effective than other psychotherapies and appears to be as effective as pharmacological treatment.[15] CBT has been associated with lower treatment dropout rates and longer-lasting treatment benefits indicated through decreased rates of relapse on completion of therapy.[35] Among panic disorder patients treated with CBT, those who continued on medication were found to have lower remission rates than those who were medication-free.[36] Group administered CBT for social phobia has also demonstrated treatment effect sizes of similar magnitude to those achieved with clonazepam.[37] While combined treatment that includes both pharmacological and CBT approaches may be required for patients with severe anxiety or co-morbid conditions, there is little evidence supporting combination treatment over individual interventions.

The concern that the costs of providing CBT may be excessive compared to other treatment modalities has been the subject of recent research in light of the high costs of the some of newer SSRI medications. A study conducted in the US found the costs for individual CBT, group CBT, and medication in a sample of patients with panic disorder to be $1357, $523, and $2302 (US funds) respectively.[38] Although medication and psychological treatments appear to produce fairly similar levels of improvement in the short run, over time there would appear to be a greater likelihood of symptom recurrence in patients maintained on medication, and complete relapse in a substantial number on discontinuation of treatment, suggesting CBT is a cost-effective option in the long run.

Walker[39] and his colleagues have examined costs associated different delivery models of CBT in Manitoba. They compared the cost of providing CBT to panic disorder patients in a group outpatient program in a public funded teaching hospital led by a psychologist with a group treatment program led by members of a self-help association (using the same educational workbook at the hospital program) and with CBT in a private practice setting. Table 3 indicates the estimated direct costs and those borne by the participant. The authors note that costs to the user for private psychologists' services may be less due to extended health benefit coverage available to some participants.

Table 3

DIRECT COST* OF GROUP CBT PROGRAM PROVIDED IN DIFFERENT SETTINGS

Setting	Estimated Cost	Cost to Participant
SELF-HELP ASSOCIATION	$280	$280
ANXIETY CLINIC (PUBLIC)	$367	$45
PRIVATE PRACTICE*	$865	$865

*In Canadian funds; From Walker (2001)

Similar findings were reported from a cost-effectiveness study of CBT for panic disorder with agoraphobia in Quebec.[40] Three CBT modalities were compared: conventional individual therapy, group therapy, and self-directed treatment. Over a 3-month period, average total CBT treatment costs for the three modalities indicated that individual CBT was three times as costly, and group CBT twice as costly as self-directed treatment. All groups were found to have equivalent three and twelve-month treatment outcomes, leading to suggestions that self-directed CBT may provide a cost-effective means of increasing accessibility to treatment and thereby reduce social and economic consequences of panic disorder. Self-study programs using structured CBT materials have been also found to produce significant improvement in social phobics compared to a waitlist control condition.[41] The degree of improvement, however, was less than that achieved with group CBT delivered through a self-help association.

It is noteworthy that there is a burgeoning literature on the value of self-help and mutual-aid for a large number of medical conditions. Self-help groups are recognized as a low-cost means of supplementing health care systems and are now recognized as best practice in mental health.[42] The US Surgeon General's report on mental health concluded that participation in self-help support groups reduces feelings of isolation, increases knowledge, and promotes coping efforts.

Promoting Consumer Choice in Treatment

Consumers value the opportunity to make informed choices with respect to mental health treatment and to be more active participants in their health care in general. Some individuals who present to health care settings have pre-existing preferences for pharmacological or psychological treatments. For others, treatment decisions will be based on information provided on the effectiveness, safety and cost of therapeutic options and the accessibility of these options.

Because the majority of people with anxiety disorders seek help through primary care settings, and because very few physicians have training in CBT, most sufferers are offered pharmacological treatment. This may not reflect patient preferences, however. A recent study that presented adults visiting general practice set-

tings with unbiased, balanced descriptions of antidepressant therapy and CBT therapy for anxiety, found that 60% of patients selected psychological treatment as their first choice, compared to 31% who selected pharmacological treatment.[43] This finding replicates patient treatment preferences observed in other mental health disorders.[44]

Meaningful choice and subsequent informed consent requires that consumers have access to different treatment avenues and have accurate information on which to base treatment decisions.[45]

4. Environmental scan

A major undertaking of the Advisory Committee has involved familiarization with anxiety programs and services in place elsewhere, particularly those across Canada. The results of this environmental scan are shown in Appendix D, which lists initiatives under the headings of early intervention, self-help, specialized treatment, provider support, and public education.

Early Intervention Strategies

More widespread prevention and early intervention efforts are essential to reducing the societal costs imposed by anxiety disorders. The majority of early intervention strategies reported in the literature has been directed to children and adolescents. The available evidence supports both universal programs[46] and programs targeted to particular groups of children showing early anxiety symptoms[47] or considered at risk on the basis of other indicators. While data on the long-term benefits of these interventions are lacking, the knowledge that the presence of anxiety symptoms during childhood increases the risk for anxiety disorders, mood disorders and substance abuse in adolescence and early adulthood, coupled with the positive short-term outcomes reported in the research, provides a sound basis for investing in early intervention activities.

Many current initiatives are modelled on the "Friends" program developed in Australia and focus on school-based interventions. Teachers, school counsellors, or school psychologists can deliver anxiety reduction interventions in schools. An example of this type of program is the Vancouver Primary Prevention Project for Anxiety Disorders (VP3) currently being evaluated. The primary goal of VP3 is to reduce anxiety disordered behaviour and thinking patterns in Vancouver public school children. The VP3 evaluation will ascertain the efficacy of a brief cognitive behavioural treatment (CBT) curriculum delivered by school personnel and determine the stability of treatment effects. VP3 will also establish if parental involvement improves outcomes in children and/or maintenance of treatment gains. The Vancouver project utilizes the *Taming Worry Dragons* protocol developed at BC Children's Hospital.

> *Taming Worry Dragons* is a program of child-friendly psycho-education about anxiety, and cognitive behavioural strategies for managing anxiety symptoms. This program draws upon the developmental responsiveness of children to metaphor and active imagination techniques. Anxiety problems are re-framed as due to "an overactive body alarm system" and a "talent for creative worrying". Children are encouraged to see worries as being like bossy or scary dragons, which need to be put in their place. Children learn techniques to "trap" (thought-stopping and compartmentalization) and "tame" (changing self-talk) their worry dragons, as well as physical relaxation techniques and "training" techniques (exposure

practice) to make them effective dragon tamers. Parents, teachers and counsellors are seen as coaches in this process. The goal is to equip anxious children with life-long, effective anxiety management tools.

On the basis of promising preliminary outcome data, the West Vancouver school board plans to have teachers implement *Taming Worry Dragons,* with the help of counsellors, in the Fall 2002 with seventeen classes of Grade 4 students. The program is also used by some family doctors for children with anxiety symptoms.

Self-Help Approaches

Self-help programs may take several forms. Self-help information sources through print media or the Internet provide tools for self-diagnosis and for self-management of symptoms. Self-help groups are typically organized by mental health advocacy associations and delivered in community settings. Both therapy groups and support groups exist. As a variation on support group meetings, the Anxiety Disorders Association of BC offers a web-based discussion forum for friends and families of anxiety sufferers.

Numerous self-help manuals or workbooks that provide anxiety sufferers with practical advice, often based on CBT techniques, have been published.[e.g.,48,49,50,51] In addition, there now exist some excellent websites that contain information intended to impart knowledge and skills to assist individuals with different anxiety disorders. Exemplary websites include the Anxiety Disorders Association of Manitoba, the McMaster Depression and Anxiety Information Resource & Education Centre, the National Institute of Mental Health Anxiety Disorders Education Program, the Anxiety Disorders Association of America, and the Clinical Research Unit for Anxiety Disorders in Australia.

The Anxiety Disorder Association of Manitoba (ADAM) and the Anxiety Disorders Association of Ontario (ADAO) both offer self-help treatment groups and receive funding from the provincial governments to support their activities. The Manitoba association has developed an extensive regional delivery model. The model is described by an ADAM board member[52] below.

> ADAM provides educational groups for adults with anxiety disorders - specifically panic disorder and social phobia. These groups provide an intervention based on principles of cognitive-behaviour therapy led by a self-help leader. The materials are the same as those used in the Anxiety Disorders Program at St. Boniface General Hospital. The two ADAM programs, *Coping with Panic* and *Dying of Embarrassment* have been evaluated in a randomized clinical trial comparing self-help leaders and professional leaders to individuals receiving the reading materials alone and individuals on a waiting list. Individuals in both of the group programs did significantly better than the bibliotherapy and the waiting list control group.
>
> Through eight regional offices outside of Winnipeg, groups are offered to individuals with anxiety disorders at no cost (although the group members pay for course materials). In Winnipeg, where there are lower levels of resources relative to the size of the population, there is a fee to attend the group - in the range of $300 for a group covering twelve 1.5 to 2 hour sessions. This fee compares favourably to programs like Weight Watchers. Fees allow the groups to operate on a break-even basis. The group leader and co-leader who are successful graduates of previous groups, recruited for their leadership ability, are paid an honorarium for their time. The groups are offered at public locations - the ADAM office, local schools or churches (generally not health facilities). The ADAM groups are listed on the list of resources that is provided by the hospital Anxiety Disorders Program (which has a 12 month waiting list) to each incoming referral. People are attracted to ADAM because they

can get help sooner. Many family physicians also refer their patients to the ADAM group programs. In many regions the ADAM program is the most specialized program available for anxiety in the region.

Specialized Treatment Programs

A subset of persons with anxiety disorders requires intensive treatment through day programs or residential care. From time to time, BC residents seek this level of care from out-of-country providers. The Massachusetts General Hospital Institute at McLean Hospital is one of the few centres that serves treatment refractory OCD and its most common comorbid conditions. The Institute provides a comprehensive program that integrates biological, behavioural and milieu treatment. While many of the Institute's patients require the most intensive level of care due to the severity of their symptoms, many use the program only during the day while residing elsewhere due to family responsibilities. The program's goal is to move patients to less acute levels of care as soon as possible. Home-based therapy is also provided either as a step-down from more intensive care.

A similar intensive day treatment program for clients with OCD in the moderate and extreme ranges is also available through the Anxiety Treatment Centre of Northern California in Sacramento. The program provides daily exposure and response prevention therapy under the guidance of OCD specialists with the number of days in the program varying according to the needs of the client.

In Canada, most specialized anxiety disorder treatment programs are teaching hospital-based, and as such are restricted to urban centres. In Ontario, specialized services are available with a physician's referral from the Toronto General Hospital, the Clarke Institute of Psychiatry and St. Joseph's Hospital.

The Anxiety Treatment and Research Centre at St. Joseph's Hospital is a leading research and treatment center for anxiety disorders, particularly OCD, in Canada. The program has been developed under the leadership of members of the Department of Psychiatry and Behavioural Neurosciences at McMaster University. The program offers individual and group cognitive-behavioural therapy solely on an outpatient basis.

Both outpatient and inpatient services are available through the Clarke Institute of Psychiatry, a division of the Centre for Addictions and Mental Health. In the Institute's Anxiety Disorders Clinic, services are provided by a multidisciplinary team utilizing both medical and psychological approaches to treatment. The Clinic offers an outpatient cognitive-behaviour therapy group program designed to eliminate anxiety problems and equip the patient with relapse-prevention skills. It also endeavours to provide alternatives to drug therapy and to help patients reduce their reliance on medication. As many patients attending the Clinic have been prescribed medication over prolonged periods of time, the Clinic offers specialized medication withdrawal programs. Within the Clarke Institute, there is a small unit for inpatient behavioural treatment of anxiety disorders, particularly OCD. Consultations on clinical case issues, whether psycho-pharmacological or psychological, are offered to health professionals through the Clarke's Psychobiology and Clinical Trials Research Unit.

Manitoba also offers anxiety treatment speciality services through three hospitals. Services are covered by Manitoba Health when referred through family practice. Programs include CBT groups provided through the Department of Psychology at Grace Hospital, an individual short-term treatment service through the Health Sciences Centre, Department of Psychiatry, and the St. Boniface Hospital, Anxiety Disorders Clinic. The latter specializes in the treatment of anxiety disorders including panic disorder/ agoraphobia, generalized anxiety disorder, OCD spectrum disorders, social phobia, post-traumatic stress disorder, specific phobias, and

intense illness worries (hypochondriasis). The program serves adults via group CBT. Individual short-term treatment is also available on a limited basis. Services are provided a by team of psychiatrists, psychologists, and nurse therapists that also provide consultation to inpatient units.

Within BC, there is one specialized anxiety treatment centre dedicated to the treatment of major types of anxiety disorders. The Anxiety Disorders Unit (ADU) is a small clinical investigations unit providing outpatient therapy through speciality-trained personnel within the University Hospital's Department of Psychiatry. The unit also provides training to pre- and post-doctoral interns. Nearly one in five of patients referred to the ADU are on social assistance or disability for mental health reasons and one-third to one-half of patients present with comorbid anxiety or depressive disorders. On average, during the past year, ADU outpatients as a group have visited their GP 9.6 times, gone to emergency departments 1.74 times, spent 1 day/night in acute hospital bed and have missed 44.2 days of paid work, because of their anxiety disorder(s). The ADU has a staff of 5.0 FTE, inclusive of secretary, diagnostic technician, and one post-doctoral fellow, and three part-time interns. The ADU sees cases of obsessive-compulsive disorder and panic disorder/agoraphobia in either group or individual format, and occasional cases of injection, blood/injury phobia and PTSD. The ADU has an approximate 6-month wait list, but this is somewhat misleading since referrals are not encouraged and many cases requiring more intensive treatment are turned away. Treatment is primarily psychological and entirely evidence-based. A part-time psychiatrist provides consultations for pharmaceutical interventions. Although the large majority of clinical services are provided to patients in the Greater Vancouver area, the ADU is considered a provincial centre of expertise and a resource for smaller regional programs.

Anxiety treatment programs also exist outside of the lower mainland. To date, these programs have developed in a somewhat fragmented or piecemeal fashion due to limited resources. Several commendable programs have arisen through the initiative and hard work of clinicians with a special interest in anxiety disorders. Table 4 provides examples of anxiety treatment programs within BC health authorities. The first of these programs, Se-Cure, was established in 1968 in Burnaby, and has since helped to establish self-help groups in a number of communities throughout the Province. The majority of available programs offer treatment for only certain anxiety disorders (most notably panic disorder), although many programs would like to expand their scope. The Courtenay program for panic disorder has observed a dramatic reduction in hospital admissions for this disorder since the inception of their service.

Many community mental health practitioners advocated for anxiety treatment protocols similar to the *Changeways* model. Although designed for depression management, in the absence of specific protocols for anxiety, some practitioners enrol their clients in *Changeways* group programs. The program's author acknowledges that certain elements of the core *Changeways* program are applicable to anxiety and that one benefit is in orienting clients to CBT models.

Finally, efforts to extend specialized services to cases outside of urban areas through telehealth have been piloted in BC. Taylor and colleagues delivered telephone-administered CBT to adults with OCD with promising results.[53] Symptom reduction over 12 weekly sessions was similar to treatment effects observed with face-to- face therapy. This program is not currently available.

Table 4

SELECTED EXAMPLES OF ANXIETY TREATMENT SERVICES WITHIN BC

- *Se-Cure, Burnaby Mental Health Services*

  Established in 1968, this program offers treatment approaches to Panic Disorder and Agoraphobia addressing diet, stress, thought patterns, and coping methods, including relaxation techniques and physical exercise. Se-Cure offers consumer-led support groups, individual assessments and CBT, as well as telephone assistance to people in parts of the province where no appropriate local help can be found. A volunteer program provides home visits to severely agoraphobic clients, to assist them in gradual desensitization to situations in the outside world. In addition, Se-Cure provides educational workshops and mails out information on anxiety management to people anywhere in the province.

- *Panic Disorder Group, Royal Columbian Hospital*

  Group treatment program led by a psychologist for individuals with Panic Disorders using a structured self-help workbook. Patients pay a small fee to cover course materials.

- *Panic Disorder and Agoraphobia Program (PDAP) & the OCD the OCD Program (OCDP), Kelowna General Hospital*

  Offers a 12-week CBT group program four times a year for individuals with Panic Disorder facilitated by a nurse therapist and Masters level social worker with consultation from a registered psychologist. The program utilizes a structured protocol based treatment manual with an emphasis on behavioural interventions, specifically exposure. Also offered once a year is a CBT group treatment program for Obsessive-Compulsive Disorder again using structured protocols and emphasizing exposure/response prevention interventions.

- *Living with Stress, Courtenay Mental Health Services*

  This program provides a 4-hour course (two 2 hour sessions) to individuals suffering from panic attacks and their families and friends in a format and setting designed to reduce stigmatization. The program is offered every 4 to 6 weeks and has had a good response rate to date. Self-help handouts and a bibliography are provided to attendees.

- *Walking through Fear, Kamloops Mental Health Centre*

  Provides a psycho-educational and skills teaching group designed to assist individuals with high anxiety or panic attacks. The group program, offered twice a year, focuses on providing information to participants on stressors, coping strategies, and relaxation techniques. The Centre also plans to develop an OCD group treatment program.

Provider Support Initiatives

Public-sector providers working with anxiety patients outside of specialized anxiety disorder clinics include primarily general medical practitioners and community mental health workers. The majority of individuals seeking help for psychological problems, including anxiety, do so through their family physician[54] yet the World Health Organization report[55] on mental illness in general health care concluded that appropriate treatments are not being applied to a sufficient degree.

Several models to support physicians in the management of anxiety disorders exist. These include prescribing guidelines, toolkits including diagnostic and treatment methods, treatment consensus statements, practice protocols for the provision of CBT in medical settings, resources such as self-directed programs for physicians to distribute to, and monitor with, their patients, shared-care activities, and continuing medical education.

Several web-based packages have been developed to support physicians. Valuable resource materials and tools, reference lists and additional links are offered through Australia's Clinical Research Unit for Anxiety Disorders (CRUFAD), the National Institute for Mental Health, and the Anxiety Disorders Association of America. Two Canadian sites, the Canadian Network for Mood and Anxiety Disorders (CANMAT) and the Depression and Anxiety Information and Resource Centre (DAIRECT) are better developed as depression resources, than for anxiety, at the present time. CANMAT, however, does offer information for physicians on the signs and symptoms of anxiety diagnostic groups, descriptions of patients at risk, and medical forms of therapy.

The World Health Organization Educational Package on Mental Disorders in Primary Care[56] provides a practical tool, available in disk or download format free of charge, to assist primary care physicians in assessing and treating anxiety disorders in patients under their care. The program also includes a detailed module on "unexplained somatic complaints" which is common a presentation in anxiety. The package contains checklists and flowcharts to establish diagnosis, diagnostic questionnaires, treatment guides, information handy-cards, and patient information leaflets. The major shortcoming of the WHO program appears to be that it has not been well marketed.

Recently, guidelines for the management of anxiety disorders in primary care, produced by the Ontario Anxiety Review Panel, have been distributed to physicians in that province.[57] The guidelines were based on available research evidence in conjunction with expert clinical opinion of the panel members and a number of clinicians across the country. Unfortunately, there has not been any follow-up evaluation to determine the uptake or degree of compliance with the guidelines.

One of the most innovative provider support packages is CLIMATE, which stands for Clinical Management and Treatment Environment. Developed by the World Health Organization Collaborating Centre at St. Vincent's Hospital in Sydney, Australia, CLIMATE is a novel service delivery model to assist primary care physicians to provide care to patients with non-acute chronic illness such as Panic Disorder. The CLIMATE website describes the program as follows:

> **CLIMATE/GP** is the name for a computerised doctor's assistant for use by patients. It provides a strategy to implement evidence-based medicine that takes the information from clinical practice guidelines to teach patients about their disorder. Teaching patients about their disorder is repetitive and is a task that computers do very well. Steps to recovery are outlined using an illustrated story line of a person doing all the right things to improve the outcome of their illness. It sets homework assignments to ensure that the patient masters each step outlined in the story. Symptoms are measured at each visit and changes in a positive direction are a cause for congratulation, while changes in a negative direction result in

the person being asked to make an appointment with the GP. CLIMATE writes to the GP to report relapse. Thus a routine outcome assessment system is instituted. People who fail appointments are sent reminder letters by the program and the GP is notified of people who drop out. This is an important feature, and as such the system is proactive.

Primary care physicians in communities outside of large urban centres typically require more support to manage mental health disorders than their urban colleagues, given the very limited availability of psychiatrists and other mental health specialists. The Centre for Telehealth at Mheccu, University of British Columbia, had been delivering distance education rounds, using videoconferencing technology, to the Peace-Liard Health Region. Recently, consumer/ family rounds and mental health professional education rounds were devoted to the topic of anxiety disorders. Mheccu also provides *The Enhanced Skills Program for Family Physicians in Mental Health*, as a shared care initiative. The goal of the program is to increase the knowledge and skill level of interested family physicians in the care of patients suffering from mental illness by direct mentoring with metal health teams. The Enhanced Skills program, delivered as a CME initiative, has not directly addressed anxiety disorders.

Recently, a field evaluation compared the delivery of continuing medical education on the management of anxiety disorder using videoconferencing, web-based conferencing, or a combined method.[58] The training was designed to improve diagnostic skills and treatment skills, both CBT and pharmacological, among rural physicians. The trial demonstrated a change in terms of knowledge, clinical practices and a reduction in benzodiazepine prescribing. The least improvements were seen in the telehealth delivery group.

Provider support is critical for the management of the large number of chronic anxiety cases which come to the attention of primary care physicians. For severe anxiety cases, however, physicians express the need to be able to refer patients out to specialized programs for treatment of the acute phase of the disorder and have the patient returned for subsequent management of the maintenance/follow-up phase of treatment. Ideally, physician-monitored phases of treatment for severe cases would be supported by expert advice from the specialty treatment service.

Awareness/Education Initiatives

The majority of advocacy organizations, both those dedicated to anxiety disorders, and many of the general mental health associations, undertake awareness raising and public education activities. Appendix D provides examples of the nature of these activities. Some of the organizations such as the Anxiety Disorders Association of Ontario issue news releases on topics of interest to the public, which may include upcoming events, recent publications, or treatment developments. The National Institute of Mental Health has developed a series of television and radio public service announcements (PSAs) on anxiety disorders. The PSAs portray the severely disabling fears associated with anxiety disorders, and send the hopeful message that people living with these frightening mental illnesses can be successfully treated. Other groups such as the Anxiety Disorders Association include a media room on their website where media personnel can find statistics and facts about anxiety disorders as well as request a media kit.

Advocacy organization websites are visited largely by individuals who are concerned about anxiety problems themselves or for family members. Most sites do an excellent job of educating this audience about the nature of anxiety disorders, established treatments, reading lists, and in some cases, local sources of professional help.

A research project in Ontario[59] is being developed to utilize common media channels (television, radio, newspaper) to inform the lay public about anxiety and to drive them to an 'enabled' multi-media high quality resource than can be used in a variety of ways depending upon the consumer. The architect of this project

cites efforts in other countries to educate the public about mental illnesses to reduce the stigma associated with these conditions and to encourage help-seeking behaviour.

5. A Strategy for British Columbia

Goals of the Strategy

The Provincial Anxiety Disorders Strategy is designed to achieve four major goals, which are:

- **Improved awareness** among the public, anxiety sufferers and professionals that anxiety disorders are treatable illnesses.
- **Improved accessibility** to information and services that may reduce the individual and societal impact of anxiety disorders.
- **Improved appropriateness** of services to ensure that interventions are evidence-based.
- **Improved outcomes** of services in terms of prevention of chronicity, symptom reduction, improved functioning and productivity and reduced use of unnecessary medical services.

Principles Underlying the Strategy

The proposed strategy adheres to the following principles, considered by the Advisory Committee as fundamental in guiding service developments.

- Equity Based on Need

  Mental health policy, services and resource allocation should accurately reflect the distinct nature, economic burden, treatability, and service requirements of anxiety disorders.

- Spectrum of Services

  Strategies must reflect the full spectrum of severity of anxiety disorders and corresponding interventions, rather than defaulting to an acute care focus. An emphasis should be seen on earlier intervention in order to prevent the development of chronic anxiety conditions and to avoid unnecessary disability.

- Outcome-Driven Care

  Publicly supported treatment services for anxiety disorders should be evidence-based, ensuring the best possible outcomes for those who seek help.

- Cost-effectiveness

  Interventions directed to the prevention and/or management of anxiety disorders should be those which achieve the greatest gains at the lowest cost.

- **Access and Portability of Services**

  Access to anxiety treatment services should not depend upon place of residence in British Columbia. When not available in local communities, services should be brought to the patient through outreach or innovative technologies. In that provisions for this do not presently exist in many BC communities, at a minimum, patients should be informed about service options outside of their home community and transportation subsidies provided.

- **Consumer Choice**

  Anxiety sufferers should have access to credible information on the effectiveness, availability and cost of treatment options to enable informed choice.

Recognizing the Range of Needs in Strategic Planning

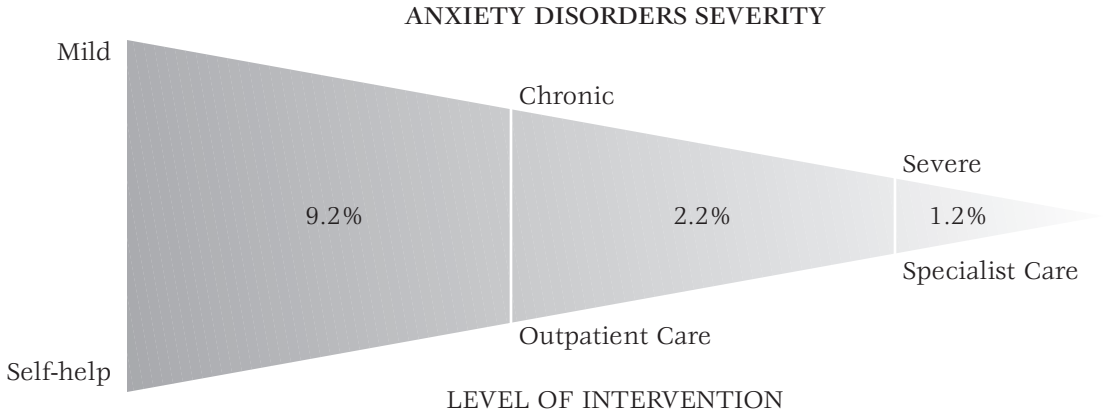
Efforts to reduce the social and economic impact of anxiety disorders require a perspective that includes the entire illness trajectory from mild cases through to severe and disabling cases. This perspective must link epidemiology and disability rates with mental health service planning. This enables aligning the service continuum to population needs. Figure 1 illustrates the differing levels of, and proportion of the adult population affected by, anxiety disorders. Movement toward the right in the illustrated triangle reflects increasing levels of clinical need but decreasing population reach. It can also be seen that quite different interventions with differing resource intensities are required to address the needs of each group.

In addition to clinical strategies directed to those individuals who meet diagnostic criteria for an anxiety disorder, general educational and awareness strategies are considered important to help those at risk and members of the general population combat fear and anxiety.

Similarly, services required to address anxiety disorders in children require a mix of universal, targeted and clinical interventions.[60] That only a small proportion of children in need come into contact with mental health professionals, underscores the limitations of clinical strategies alone to reduce the impact of mental health problems among youth. It is now recognized that more effort should be directed to prevention strategies, particularly those that focus on children at risk for anxiety disorders. Also key, in interventions with children, is the need to avoid stigmatization and labelling.

Figure 1

LEVELS/MAGNITUDE OF NEED AND CORRESPONDING INTENSITY OF INTERVENTION



A Needs-Based Service Spectrum

In recognition of the need for a comprehensive intervention strategy to achieve the four major goals of improved awareness, access, appropriateness and outcomes, the Advisory Committee recommends that the strategy incorporate a service continuum that reflects different levels of population need. The service spectrum, shown in Figure 2, identifies five different target groups to whom strategies could be directed. These groups include:

- Members of the general public
- Populations at risk for anxiety disorders
- Individuals with mild anxiety disorders
- Individuals with chronic anxiety disorders
- Individuals with severe anxiety disorders.

Because the strategies designed to address chronic and severe anxiety disorders overlap, these target groups are combined in Figure 2.

Figure 2

POPULATION FOCUSED SERVICE SPECTRUM

General Population	**At Risk Population**	**Individual with Mild Disorders Disorders**	**Individuals with Chronic & Severe**
UNIVERSAL →	*TARGETED* →		*CLINICAL*
Awareness programs	Targeted school-based interventions	Web-based self-help programs including self-diagnostic tools	Enhanced primary care services
Universal school-based interventions	Web and other media based education and support	Self-help therapy groups	Community mental health centre programs
			Specialized regional anxiety treatment services
			OCD day programs

Key Elements of the BC Strategy

This section outlines specific initiatives under the broad population groupings that constitute the overall strategy. The strategy includes a rational mix of *universal*, *targeted* and *clinical* interventions:

- In universal programs, groups or individuals are not singled out, rather the intervention is directed to the entire target population that may represent individuals in a particular setting (e.g., classroom, schools, etc.), community, or region.
- Targeted interventions are directed to individuals who do not seek help but are identified on the basis of a distinguishing characteristic (e.g., family history, low socio-economic status, etc.) or through screening mechanisms that indicate the presence of early symptoms or other markers.[61]

- Clinical interventions represent those directed to individuals who do seek help for a mental health problem.

It should be noted that the suggested interventions within the service spectrum are linked conceptually and pragmatically. For instance, it does not make sense to enhance public awareness around anxiety disorders, which may encourage formal help-seeking, if treatment service capacity is highly limited.

On the following pages, each initiative is briefly described and characterized according key planning parameters[62] including service reach and intended results.[b] Also addressed are suggested timelines and other considerations with respect to implementation.

1. General Population Strategies

1(a) Public Awareness Raising Campaign

Rationale:

Improving awareness that anxiety disorders are common illness that can be effectively diagnosed and treated is one important means of addressing the substantial degree of unmet need among anxiety disorder sufferers.

Description:

Universal multi-media program (print, television, radio) to raise awareness among the general adult public, including health care professionals, designed to coincide other mental health awareness-raising efforts. Awareness activities may also take the form of provincial or national screening activities such as the annual national depression screening day.

Reach:

Variable depends upon the media used and the geographic coverage. The potential is for a very large service reach.

Intended Results:

Increase in the proportion of individuals with anxiety disorders in receipt of treatment services, particularly self-help programs

Priority:

Long-term (3 to 5 years)

Considerations/ Concerns:

Adequate self-help and formal treatment service capacity should be in place before awareness-raising activities are pursued.

b. Resource requirements are obviously also an important planning parameter but their estimation requires a more detailed understanding of the implementation strategy which is beyond the scope of this report.

1(b) Universal School-Based Interventions

Rationale:

Universal school-based programs provided to school-age children, regardless of anxiety status, have the potential to enhance psychological competence in students and avoid stigmatization through labelling. Programs which invest in mental health early in the life span are relatively inexpensive and represent a sensible long-term clinical cost-avoidance strategy.[c]

Description:

Program targeted to elementary school children in selected grades using *Taming Worry Dragons,* or equivalent approach, designed to impart coping skills to deal with anxious feelings and fears.

Reach:

High, capable of reaching all school enrolled children in the province in a selected age range.

Intended Results:

Reduced number of children and adolescents with anxiety problems.

Priority:

Intermediate (1 to 3 years)

Considerations/ Concerns:

Evidence suggests that universal anxiety prevention programs can successfully be administered by regular teaching staff, who have had brief in-service training, and do not require psychologists.

2. High-Risk Population Strategies

2(a) Targeted School-Based Interventions

Rationale:

School-based targeted programs provide an important opportunity to intervene early with adolescents most at risk for the development of chronic and debilitating anxiety disorders.

Description:

Program targeted to adolescent students identified by teachers, parents, or universal screening methods, designed to identify youth exhibiting sub-threshold levels or early stage anxiety symptoms who could benefit from school counsellor administered brief therapies or from referral to a health care professional.

Reach:

Depends upon screening method used for identification of high-risk cases and the number of schools implementing program.

c. Youth mental health is currently the responsibility of the Ministry for Children and Family Development. Funding strategies should explore cost-sharing between government ministries, health authorities, and school districts.

Intended Results:

Higher detection rates; higher treatment contact rates; prevention of illness progression; improved school and social functioning.

Priority:

Intermediate (1 to 3 years)

Considerations/Concerns:

Targeted interventions are potentially more efficient than universal programs in so far as they are directed to a much smaller number of children. Challenges include methods of accurate targeting (screening) and preventing exposing identified youth to labelling and stigmatization.

2(b) Web-based Education and Support

Rationale:

Basic education and psycho-education may help those with minimal symptoms or early onset disorders and thereby impede the progression of symptoms to more serious clinical levels.

Description:

Web-based service, delivered through ADABC or ADU, designed to provide a psycho-education service to adults with early anxiety symptoms, or family members, regarding types of anxiety disorders and to impart basic cognitive, behavioural and lifestyle strategies.

Reach:

High, given adequate marketing of website.

Intended Results:

Reduced incidence of clinical cases.

Priority:

Intermediate (1 to 3 years)

Considerations:

This strategy has relatively low resource requirements given the wide availability of good consumer educational information and given that costs are restricted to development and maintenance of a website. Consideration should also be given to other information outlets, however, to serve individuals who cannot access web-based material.

3. Strategies Directed to Individuals with Mild Anxiety Disorders

3(a) Web-based Self-diagnostic and Self-help Programs

Rationale:

Certain clients, for reasons of personal preferences or geography, will benefit from access to a web-based self-directed program.

Description:

This strategy would be modelled after the CRUFAD consumer support program. The program would permit consumers to assess the nature and severity of their anxiety symptoms using interactive diagnostic questionnaires. These results would direct them to a structured self-help program for symptom management. This program is a direct extension of the educational program for high-risk individuals described above.

Reach:

Given adequate publicity, there is an opportunity to serve a large number of anxiety sufferers throughout the province. Service reach can be determined through the number of web site identified participants.

Intended Results:

Improved access for underserved populations; improved clinical outcomes; reduced need for formal services.

Priority:

Intermediate (1 to 3 years)

Considerations:

While such programs greatly enhance access to some form of intervention, there is a trade-off in so far as the outcomes achieved will not be as good as those attainable through direct self-help group participation.

3(b) Community-Based Self-help Therapy Groups

Rationale:

Self-help groups are recognized as an efficient means of supplementing and expanding the formal mental health care system for uncomplicated anxiety conditions.

Description:

Similar to the model implemented in Manitoba, this program would provide consumer-led CBT groups using a structured program with a self-help focus. The program represents a means to educate sufferers about empirically validated self-help methods to control symptoms and improve quality of life. The program would start with panic disorder and OCD and build modules for other anxiety disorders over time.

Reach:

High – there is the potential to serve a large number of cases presently not being served or not getting appropriate care. Ideally the self-help program should be available in several communities in each RHA.

Intended Results:

Increased number of individuals with anxiety disorders in receipt of self-help therapy; decreased symptoms; reduced need for formal services.

Priority:

Immediate

Considerations:

Participants in self-help therapy groups are often required pay a fee to cover basic course costs, but some start-up funds may be required to launch and monitor the program. The feasibility and sustainability of self-help groups is contingent upon the involvement of volunteer consumers.

4. Strategies Directed to Individuals with Chronic and Severe Disorders

The first two strategies listed below are designed to improve the appropriateness of care delivered by existing providers, primary care physicians and community mental health workers, through the provision of a range of provider support initiatives. The objective is to encourage the use of evidence-based interventions by providing clinical decision-support mechanisms that are easily and readily accessible. The remaining strategies reflect the need for specialized services for treatment-resistant cases.

4(a) Enhanced Primary Care Services

Rationale:

The large majority of individuals with anxiety disorders seek help in primary care settings. Many primary care practitioners are not equipped to provide appropriate care to these patients. Primary care providers have expressed a need for pragmatic solutions to manage mental health patients in a fee-for-service environment that also includes tools and delivery models for non-pharmacological treatments.

Description:

A range of provider support mechanisms that meet the needs and preferences of primary care physicians. Recommended mechanisms include clinical decision-support such as real-time telephone case consultation with anxiety specialists, training in physician-delivered brief CBT, computer assisted patient resources such as CLIMATE developed for implementation in general practice settings, and traditional shared-care initiatives in which family physicians can co-manage patients with specialists and receive expert advice and assistance on difficult cases. In-office shared-care approaches are considered particularly beneficial.

Reach:

The potential to increase the number of chronic and severe cases treated appropriately is high.

Intended Results:

Increased detection of anxiety disorders; increased treatment prevalence, improved patient outcomes; prevention of co-morbid conditions; reduced use of acute-care.

Priority:

Immediate

Considerations:

A variety of physician information resources on the clinical management of anxiety disorders exist. The uptake of these resources appears to be poor and as a result, a substantial proportion of anxiety sufferers are not accurately diagnosed nor appropriately treated. The emphasis in new provider support initiatives needs to be placed squarely on practical mechanisms for which there is a high utility for the busy primary care practitioner in fee-for-service settings. Consideration needs to be given to options for compensating family physicians for indirect services such as case-consultation.

4(b) Expanded Community Mental Health Programs

Rationale:

Presently, in many communities, individuals with anxiety disorders have difficulty obtaining needed treatment through community mental health centre programs. This occurs either because specific anxiety treatment programs are not available, anxiety disorders are not given service priority, or centre staff do not

have the required expertise to treat these cases. Accepted cases are often provided with generic supportive counselling, known to be ineffective in the treatment of anxiety disorders.

Description:

This initiative is designed to provide standardized training, treatment protocols and resource materials (similar to *Changeways*) to community mental health workers to improve reliance on evidence-based interventions in the management of anxiety disorders in community mental health settings. The program also envisions access to expert support and shared-care for difficult cases through the Anxiety Disorders Unit at University Hospital or identified regional specialists.

Reach:

Approximately 3000 – 5000 chronic anxiety cases are expected to be seen through community mental health programs per annum.

Intended Results:

Improved care and outcomes for clients with chronic and severe anxiety disorders.

Priority:

Immediate (within 1 year)

Considerations:

The challenge in the provision of standardized structured interventions is in ensuring adherence to original treatment protocols both in terms of content and delivery. There is a recognized need for tighter professional standards and quality control to guarantee that treatments are delivered as intended and to achieve a consistent quality of care across the province. In addition to efforts to improve the capability of community mental health staff to deliver evidence-based treatment protocols, a shift in clinical policy that recognizes anxiety disorder patients as eligible for services through community mental health programs may be required in some regions.

4(c) Specialized Regional Anxiety Treatment Centres

Rationale:

A proportion of cases at the chronic and severe level require specialized intensive treatment services. These individuals experience marked disability usually being unable to work, or in some cases to leave their homes. Comorbid psychiatric disorders, most frequently depression and substance abuse complicate the successful treatment in these cases.

Description:

This strategy envisions specialized regional anxiety services spawned over the next three years from a provincial care centre. The provincial care centre would provide direct care in the Greater Vancouver area and through regional support mechanisms (e.g., shared care, telehealth) export expertise to care for severe anxiety cases across the province on a continuing basis. Strategically, the provincial anxiety care centre should be developed first, so that it is in position to assist the development of regional initiatives.

Reach:

Opportunity to reach a high proportion of individuals with severe anxiety disorders given the higher-rate of help-seeking behaviour in this group.

Intended Results:

Increased to specialized care for treatment-resistant cases; improved patient outcomes including reduced disability and return to productivity.

Priority:

Immediate (within 1 year)

Considerations:

A centre or hub of expertise at the provincial level ensures there is centralized capacity to develop regional nodes and assure service quality and treatment standards. A variety of models for specialized anxiety services within RHAs are possible including services which operate as a division of community mental health programs or within regional hospitals.

4(d) Day Programs for Obsessive-Compulsive Disorders

Rationale:

Currently, it is clear that a number of severe OCD patients require more intensive intervention in the form of day care treatment. The costs of a day program could be offset by reductions in the approximate 1600 hospital days now associated with OCD cases. A recent pilot day program at ADU with OCD patients, who where unresponsive to treatment on a once/week office visit basis, achieved positive treatment outcomes.

Description:

A day treatment program could initially serve as a provincial resource, operated out of the ADU at University Hospital. The program would provide 5 to 6 hours/day of treatment for a period of 2-3 weeks for OCD patients for whom the patient's physician was considering hospitalization. An OCD day program at a provincial centre could subsequently 'export' expertise and capacity and support the development of other OCD day programs in the health authorities on an as needed basis.

Reach:

Low, approximately 200-300 cases per year province-wide

Intended Results:

Significantly reduced OCD related hospitalizations

Priority:

Immediate (within 1 year)

Considerations:

The potential exists for the OCD day program to provide a revenue stream by servicing OCD patients from other Canadian provinces.

6. Priorities and Recommended Action

Given the lack of appropriate services for anxiety disorders across BC, implementation of a provincial strategy represents a much needed, but extensive, undertaking. While the Advisory Committee recognizes that within BC's regionalized health care delivery system, individual health authorities may opt for different service configurations to address anxiety disorders, it is apparent that some central support and guidance through a provincial centre of expertise will be required. Thus the proposed strategy should be viewed as a framework of best practices on which comprehensive regional anxiety services models may be built, rather than as a prescribed template for implementation.

The viability of the current strategy is conditional on the early establishment of provincial hub or centre of clinical and research expertise to support/coordinate many of the individual strategy elements and to foster the development of regional capacity in the provision of anxiety treatment services. At the current juncture, the Advisory Committee endorses modest expansion of the Anxiety Disorders Unit at University Hospital as the most efficient means of creating a provincial resource as outlined in section 4c. At present, however, the ADU is equipped primarily for the provision of local outpatient clinical services. Hence, enhancements to the Unit would be required to achieve many of the strategy's elements and as such represent an immediate priority for action. These enhancements would allow the Unit to assist regional health authorities to evaluate their requirements and help them recruit suitably trained individuals to provide and/or coordinate regional psychological services for anxiety disorders.

The provincial centre would also engage in intervention deployment — efforts to take evidence-based interventions into the field and encourage their use by providers — by providing on site training to other treatment providers from within BC (frequently requested, but not available), supporting primary care physicians, community mental health workers and lay group treatment leaders in resolving diagnostic questions, developing treatment protocols and trouble shooting treatment delivery problems, as well as providing clinical outreach services to patients, on an interim basis, while local capacity is being developed. Another function provided by the ADU includes providing expert advice on the development of the self-help therapy program to ensure the program content is evidence-based. The Committee anticipates that the support function and associated costs of the provincial hub would adjust over time as regional expertise and capacity is established.

Educational institutions in British Columbia who train practitioners to work in the area of mental health will need to adopt an evidence-based tradition if publicly-funded services are to become more outcome-oriented. Clearly, the long-term success of the anxiety disorders strategy will be enhanced through efforts to ensure evidence-based interventions are emphasized in the core curriculum for professional mental health and related training programs. In addition, the intended expanded population reach of the interventions proposed in the provincial strategy is contingent upon the application of innovative information and dissemination technologies that overcome gaps and distance between pockets of clinical expertise and local providers around the province. There is a very strong economic argument for this model that includes a shared care approach and utilizes advanced technology to overcome geography.

Strategy components have been characterized as priorities for action on either an immediate, intermediate, or long-term basis. Priorities for immediate action are those that have either the potential to reach a large number of individuals with anxiety disorders expediently or to reduce the burden of suffering among those with disabling anxiety disorders. The development of a consumer-led self-help therapy program, similar to the model in place in Manitoba, is identified by the committee as a cost-effective means of quickly inter-

vening with a large number of individuals suffering from uncomplicated panic disorders and obsessive-compulsive disorders. Because the program is intended to operate on a cost-recovery basis, resource requirements are quite low including one-time start up funding and a small annual budget for maintenance. Another immediate priority is decision support for primary care physicians given that individuals with anxiety disorders are more likely to present in primary care than any other settings. Increased capacity to provide specialized treatment through community mental health workers and settings should also be pursued in the short-term as a means of promoting equitable access to quality care.

7. Gauging Success through Performance Monitoring

The success of the Provincial Anxiety Disorders strategy can be measured in terms of progress towards the four key goals of improved awareness, improved access, improved appropriateness and improved outcomes. Milestones and measures of performance are required at the regional and provincial level. The staged nature of the strategy necessitates some monitoring of process indicators, yet the ultimate indicators of performance are ones that reflect intended outcomes at the patient, program and system levels.

Unfortunately, coding practices with respect to MSP claims do not isolate services specific to anxiety disorders and limit the information yield from routine administrative data regarding physician services. Given that billing code requirements cannot be readily changed and given the information limitations of utilization data, performance monitoring will need to include other data sources such as surveys, audits or other special investigations. For instance, an understanding of the success of strategies to support primary care providers in the management of anxiety disorders will require information about what factors influence whether evidence-based interventions are adopted, whether the interventions are delivered appropriately, and whether they contribute to better treatment outcomes.

While a detailed performance monitoring framework is beyond the scope of this report, the following table suggests key indicators of performance in relation to the strategy's goals. In some cases, source of information to report on these indicators will need to be developed.

Table 5

PROPOSED PERFORMANCE INDICATORS FOR THE PROVINCIAL ANXIETY DISORDERS STRATEGY

GOAL	INDICATOR
Improved awareness among the public, anxiety sufferers and professionals that anxiety disorders are treatable illnesses	■ Number of public education media messages and estimated population reach ■ Number of website visits to information/ education pages ■ Number of web-based visits to referral information page ■ Number of community mental health program referrals ■ Number of referrals to ADU and regional speciality services
Improved accessibility to information and services that may reduce the individual and societal impact of anxiety disorders	■ Treatment prevalence rates for different anxiety disorder diagnoses by region ■ Number of participants in community-based self-help programs ■ Number of participants in web-based self-help program
Improved appropriateness of services to ensure that interventions are based on current evidence and best practices	■ Number of physicians enrolled in provider support program ■ Number of community mental health centre personnel in receipt of training ■ Number of patients in receipt of established treatment protocols ■ Programmatic changes in professional training programs
Improved outcomes of services in terms of prevention of chronicity, symptom reduction, improved functioning and productivity and reduced use of unnecessary medical services.	■ Proportion of treated patients with improved clinical status ■ Proportion of treated patients able to resume work or other marker of improved functioning/productivity ■ Utilization rates of non-psychiatric medical services including lab and diagnostic services, specialist consults ■ Hospital separations attributable to anxiety diagnoses

8. Conclusion

The Advisory Committee endorses the World Health Organization perspective that anxiety disorders are grossly under-diagnosed and under-treated and stresses the need for early attention to this clinical group of disorders. Many anxiety disorders exist as chronic conditions and should be addressed within a chronic disease management framework. Because anxiety disorders have been a neglected area within the mental health sector, a strong commitment and investment of resources is required to attain a level of servicing that is comparable to other major mental illness categories. This report argues for a greater reliance on outcome data and evidence and a corresponding move toward increased parity within the mental health sector. Anxiety-related burden of disease must be recognized in both economic and human terms. Only through implementation of a comprehensive approach to anxiety disorders, one that optimally combines population-based and clinical strategies, can significant reductions in disease burden be achieved.

The Committee is conscious of the current fiscal environment and the competing pressures on health care, in general, and on mental health, in particular. Given the enormous economic burden of anxiety disorders, however, it advocates for greater reflection on cost and benefit over the longer term. The strategy put forward by the Committee includes a discrete number of cost-effective interventions which may be phased in over time. Overall, the resource requirements to implement the strategy are relatively modest in comparison to expenditures on other mental disorders and represent only a fraction of total societal costs.

The present strategy has been reviewed by two international experts in the field of anxiety disorders and their management. Professor David Clark, Head, Department of Psychology, Maudsley Institute of Psychiatry, University of London concluded that the Advisory Committee's report *documents the scale and nature of this problem in impressive detail and outlines a sensible, workable, and innovative plan for improving the care of anxiety disorders.* Similarly Dr. Richard Swinson, Morgan Firestone Chair and Professor, Department of Psychiatry and Behavioural Neurosciences, McMaster University congratulated the Advisory Committee *for developing a strong, coherent argument for structured change.*

The Advisory Committee wishes to stress the necessity of a champion or coordinating body to lead implementation of this strategy. The proposed strategy, in its present form, represents a conceptual framework rather than a blueprint for change. It is hoped that the provincial government will continue to provide the leadership it has shown to date in its acknowledgement of the impact of anxiety disorders on the health and productivity of British Columbians through needed policy direction and support that will enable change at the health authority level.

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Appendix A

Provincial Anxiety Disorders Strategy Advisory Committee Membership List

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Appendix B

External Reviewers' Comments

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Appendix C

The Need for a Provincial Strategy to Address the Prevention and Management of Anxiety Disorders

Overview and Purpose

Anxiety disorders are recognized as the most common form of mental illness, affecting over one in ten adults in any 12-month period. Although effective treatments for anxiety disorders have been established, the condition continues to be associated with high social and economic costs and accounts for a significant proportion of mental health-related global burden of disease. Recent research has revealed that the associated disease burden persists for two reasons: many anxiety sufferers do not seek treatment and for those who do, treatments with established efficacy are either unavailable or not delivered in an effective manner. That appropriate treatments are not available to anxiety sufferers stems from underdiagnosis/ misdiagnosis of anxiety disorders as well as a lack of specific skills among care providers. Among individuals seeking treatment for anxiety, the majority are seen in general practice settings where the primary mode of treatment is pharmacological. Behavioural (BT) and cognitive-behavioural therapies (CBT), known to be highly effective, may be intermittently obtained through private practicing psychologists, mental health centers, or psychiatrists. However, the expertise to administer these treatments is not consistently available in the province through any of these sources.

In British Columbia, public sector mental health services have undergone a shift in clinical focus where priority is given to persons with serious mental illness. The result has been improved supports for individuals with psychotic illnesses and a concomitant rationing of mental health services. This has accentuated the lack of specialized services available to individuals with other mental disorders including the approximate one percent of the population with severe anxiety disorders who experience disability in social and vocational functioning. This is problematic given that the number of persons estimated to have disabling anxiety disorders exceeds the number of people in the province with schizophrenia. Recently, concern has arisen among decision-makers, service providers, and advocates that mental health reform efforts have not included sufficient provisions for severe non-psychotic conditions. The economic and social burden, coupled with the treatable nature of anxiety disorders, argues for greater attention to this condition in mental health care planning. The purpose of this paper is to present a rationale for developing a coordinated provincial approach to reducing the health, social and financial impact of anxiety disorders and to propose the basic components of a provincial strategy.

Types of Anxiety Disorders

The most common categories of anxiety disorders are: [1]

- *Panic disorder (PD) with and without agoraphobia (PDA)*
  Both conditions involve recurrent unexpected panic attacks characterized by intense physical symptoms, persistent worry about future attacks and the implications of these attacks (i.e., losing control). When associated with agoraphobia, there is marked avoidance of situations and environments in which panic attacks might occur.

- *Obsessive-compulsive disorder (OCD)*
  OCD Is associated with repetitive, intrusive, irrational thoughts that the individual is unable to control. These obsessive thoughts cause extreme anxiety that can only be relieved through compulsive behaviours or rituals. The time-consuming nature of the rituals causes significant impairment of day-to-day functioning.

- *Social phobia*
  The defining feature of social phobia is an exaggerated fear and discomfort associated with social or performance situations. The attention or scrutiny of others, along with the fear of embarrassment or humiliation, provokes intense anxiety and distress and leads to avoidance of social situations.

- *Generalized anxiety disorder (GAD)*
  GAD is a syndrome in which excessive worry and apprehension regarding a variety of events and activities predominate during most days over at least a six-month period. Like other anxiety disorders, GAD is accompanied by symptoms of physical agitation including muscle tension, insomnia and difficulty concentrating. It is a pervasive rather than focused anxiety disorder.

- *Specific phobia*
  These disorders involve heightened fear in response to the presence, or anticipation, of a specific object or situation such as heights, flying, snakes, injections, etc. Although the fear is often recognized as unreasonable, exposure to the feared object produces an intense anxiety reaction that may take the form of a panic attack. Avoidance behaviour is common and in severe cases social and occupational functioning may be restricted.

- *Posttraumatic stress disorder (PTSD)*
  PTSD occurs subsequent to the experience of a highly traumatic event in which actual or threatened death or serious injury to self or others was involved and caused marked fear, horror and/or helplessness. The traumatic event is re-experienced through intrusive images or memories, recurrent dreams, or feelings that the event is recurring. Symptoms must cause serious distress or interference with functioning for at least one month to meet diagnostic criteria.

Prevalence

Prevalence Rates in the General Population

Both 12-month and lifetime prevalence rates of anxiety disorders reported in adult samples are high. Twelve-month prevalence rates for any anxiety disorder show a considerable range: 19.1% reported in the Netherlands,[2] 12.2% in Ontario,[3] 12.6% in the United States,[4] and 10.9 % in Australia.[5] Published lifetime prevalence rates for anxiety disorders suggest that somewhere between ten percent[6] to one-quarter of the population is affected.[7]

Given the variability in published prevalence data, Mheccu undertook a review of the epidemiological literature on mental disorders including anxiety. From this, Mheccu derived rates that represented realistic estimates of prevalence for the purpose of quantifying the number of cases within BC. The resulting 12-month prevalence estimates for anxiety disorders are shown below. Mheccu's "best estimates" for the presence of any anxiety disorder were 13.9% (1-year) and 17.9% (lifetime). The 12-month rate, when applied to BC population figures, translates to approximately 396,000 cases, between the ages of 15 and 64, in 2001, and using future population projections, 466,000 in 2011 and 502,000 in 2021. However, about half of all cases would meet criteria only for specific phobia, many of whom may not experience significant disability or require treatment. With respect to PTSD, 12-month prevalence data is not available. However, the National Comorbidity Study, one of the few epidemiological studies that included this disorder, reported a lifetime prevalence of 7.8%.[7]

Anxiety Disorders	12-month Prevalence (%) (Adults)
Panic Disorder	1.3
Social Phobia	6.5
Specific Phobia	7.4
Agoraphobia	2.0
Obsessive-compulsive	0.8
Generalized Anxiety	2.1
Any anxiety disorder	13.9

Prevalence of Severe Anxiety Disorders

Estimations of need for specialized or intensive treatment services require an understanding of the proportion of the population that experience severe and debilitating anxiety disorders. Andrews[8] projected, on the basis of studies on mental health related disability, that 1.2% of the adult population in Australia will have an anxiety disorder that is chronic and disabling. The US National Advisory Council on Mental Health[9] estimated that 0.4% of American adults will have a severe panic disorder while 0.6% will have a severe obsessive-compulsive disorder. Other reports have included a proportion of social phobias in the severe category. Using the range for severe conditions of 1% to 1.2%, applied to the BC population, indicates that currently between 28,000 and 33,000 individuals in the province between the ages of 15 and 64 are severely disabled by their anxiety disorders and will require highly specialized care.

Associated Disability and Economic Burden

The Nature of Disability in Anxiety Disorders

Numerous clinical and epidemiological studies have established that anxiety disorders markedly compromise quality of life and psychosocial functioning.[10] Functional impairment can occur in anxiety disorders at all levels of severity. Antony et al.[11] found that individuals who met DSM-IV criteria for panic disorder, OCD, and social phobia reported much higher levels of illness intrusiveness than groups with other chronic illnesses.

The impact of anxiety related disability has also been studied at the population level. Population disability units (PDUs), calculated by measuring the number of cases of a disorder by the average level of disability, reflect the total disability in a given population. In Australia, anxiety disorder PDUs accounted for 35% of total population disability attributed to mental disorders, falling just below depression at 38%.[12]

Panic disorder is recognized as a chronic condition with nearly half of all cases showing an unremitting course.[13] Cases with PD are believed to have the worst outcomes compared to other disorders, and show an increased risk of social impairment including relationship problems, financial dependence and lower overall self-rated health.[14] In addition, many patients with PD will show comorbid depression.[15]

Comorbid psychiatric disorders are also very common in social phobia, the most likely coexisting conditions being other anxiety disorders, depression, and substance misuse. The majority of cases exhibit a chronic course. Only one-third of social phobics experienced a complete remission in an eight-year longitudinal study.[16] The curtailed social activities associated with this disorder eventually exert a detrimental effect on educational attainment, occupational functioning, and financial and marital status.[17] One review estimated that approximately one-fifth of those with social phobias in the United States are on social assistance.[18] In fact, men with PD, OCD and phobias are more likely to be unemployed.[19]

The level of disability observed in OCD patients requiring hospitalization rivals that found in schizophrenia.[20] Individuals with advanced symptoms, experience severe disruption of social and vocational functioning due to the excessive time required for checking, ordering, and carrying out other compulsive and ritualistic behaviours. Quality of life is significantly impaired[21] and the immense personal distress associated with the condition frequently leads to depression.[22]

Direct and Indirect Costs of Anxiety Disorders

Individuals with anxiety disorders tend to be high users of health care services. Anxiety patients often present with unexplained somatic symptoms, which may result in numerous unnecessary and costly investigations.[23] Primary care patients who met diagnostic criteria for anxiety or depressive disorders had significantly higher health care costs than patients with sub-clinical disorders and those with no disorder.[24] The differences were found due to higher use of general medical services than to higher mental health treatment costs.

To date there have been no formal studies of the direct and indirect costs of anxiety disorders in Canada. A 1999 study[25] in the US estimated the annual cost of anxiety disorders, including the direct costs of treatment and the indirect costs of impaired social functioning, at $42 billion USD. The authors reported that total costs could be attributed as follows: 54% in non-psychiatric medical costs, 31% in mental health treatment costs, 10% in indirect workplace costs, 3% in mortality costs, and 2% in pharmaceutical costs. A similar study estimated costs in the US at $46 billion and reported that anxiety disorders account for nearly one-third of the total costs imposed by mental disorders and represents the most costly of all disorders.[26]

Health Care Utilization Related to Anxiety Disorders

The public mental health system response to anxiety disorders should be informed by a coherent needs assessment. An understanding of current utilization patterns, in conjunction with prevalence data, is an essential component of a needs assessment. The application of anxiety disorder prevalence rates to general population figures provides some estimate of the number of people potentially affected by these disorders while, anxiety-related health care utilization is a proxy for personal distress and the inability to cope without professional assistance, therefore constituting an index of need or demand for service.

Utilization in British Columbia

In BC, administrative data coding systems make it difficult to count service contacts that are specifically related to anxiety conditions. Medical service plan (MSP) claims for physician visits and hospital separations are both coded according to the Ninth Edition of the International Classification of Diseases (ICD-9) in which anxiety is included, along with other mental health conditions, in the category of Neurotic Disorders. The CPIM data system used by community mental health centers records client information according to the Diagnostic and Statistical Manual of Mental Disorder – Fourth Edition (DSM-IV), permitting unique counts of anxiety disorder clients.

- In 1998/99 there were 275,383 MSP billed visits for Neurotic Disorders for persons aged 15 to 64. If even half of these visits were for patients presenting with anxiety symptoms, this would reflect an annual utilization rate of approximately five visits per 100 population.
- Hospital separation data is also coded using ICD-9. A total of 1428 acute-care separations in 1998/99 were classified as Neurotic Disorders for persons between 15 and 64 years of age. Hospital data is difficult to interpret in so far as severe anxiety cases may be hospitalized for secondary depression.

- 1017 cases, between the ages of 15 and 64, seen at mental health centers in 1998/99, had recorded DSM-IV anxiety disorder diagnoses. This represents a sharp decline in admissions since 1996/97.
- The Anxiety Disorders Unit at UBC Hospital is a small outpatient service offering treatment to PD/A and OCD sufferers. It is the only specialized treatment centre for anxiety disorders in the province, serving primarily the lower mainland. Last year ADU received 501 referrals, a substantial number of which were from other areas of the province. The program however has no capacity or funding for providing services outside of the region. There were 1581 patient visits during the previous year which included assessments, and individual and group treatments. The unit has a six-month waiting list.
- Pharmanet data on benzodiazepine prescriptions dispensed to BC residents will be examined pending a data release application to the College of Pharmacists.
- Within the self-help sector, limited resources are available. The Anxiety Disorders Association of BC is a two-year old and rapidly growing volunteer, nonprofit society dedicated to increasing public awareness of anxiety disorders and access to available treatments. A Kelowna anxiety self-help group offers education and support through weekly meetings at a local hospital.
- An unknown number of anxiety sufferers seek help from private practicing psychologists. Unless coverage is available through an employee extended health benefit plan, the cost of psychological services must be borne by the client. This renders treatment through the private sector prohibitive for a large segment of the population. Moreover, many psychologists engage in generic, or other, psychotherapies for which there is no evidence of effectiveness in the treatment of anxiety disorders.

Utilization Patterns Elsewhere

Studies of health service utilization elsewhere have shown that two-thirds of persons with mental disorders do not receive treatment.[27] In the American ECA studies,[4] among individuals with anxiety disorders, 28.6% had contact with a health or human service professional. Only 14.1% received services from the specialty mental health/addictive sector. Highest service-use rates were found among individuals with panic disorders; this finding being replicated in other studies.e.g.,[28] Swinson et al.[29] studied social phobics and panic disorder cases in Canada and found that, among the latter, two-thirds had consulted a psychiatrist, 21% had presented to hospital emergency, 9% had been hospitalized, 9% had seen a cardiologist and 17% had seen a neurologist for anxiety-related complaints at some point during the course of their disorder.

Treatment of Anxiety Disorders

In questioning why the burden of disease persists for anxiety and depression in Australia, Andrews and his colleagues[30] examined four possibilities:

(i) burden estimates are incorrect, (ii) effective treatments do not exist, (iii) people do not receive treatment, or (iv) people do not receive effective treatment. Burden estimates were verified in so far as anxiety and depression were found to account for more than half of the burden attributable to mental disorders, ranking third in importance after heart disease and cancer. They also determined through a review of the literature that efficacious treatments have been established. The study found that half of those with a generalized anxiety disorder had not sought treatment in the previous twelve months and among those who had, a minority had received potentially effective treatments.

A similar conclusion was reached in a recent Health Canada report[31] on anxiety disorders research and treatment:

> *A number of effective treatments exist for these disorders. However, recent research suggests that health and mental health professionals may lack knowledge of appropriate treatments for anxiety disorders, and may use treatments which are not based on sound empirical evidence.*

This lack of treatment expertise among providers constitutes a major service gap given that a strong evidence base supports effective approaches to the management of anxiety: pharmacotherapy, behaviour therapy (BT) and cognitive-behaviour therapy (CBT). Different antidepressants have proven effective in the treatment of certain anxiety disorders (e.g., selective serotonin reuptake inhibitors in OCD0. The predominant medications prescribed to treat PD, PDA, social phobia and GAD are the benzodiazepines. The long-term use of these medications, however, can lead to dependency with discontinuation resulting in withdrawal and symptom rebound.

The Canadian Medical Association[32] has concluded that the benefit: risk ratio for benzodiazepines does not support wide use. Their guidelines recommend that these medications should be used after non-drug therapies have been tried. In B.C., the Therapeutics Initiative has issued a *Therapeutics Letter* on the management of anxiety[33] in which long-term pharmacologic therapy for anxiety is discouraged and non-drug therapies are emphasized as essential components of treatment.

Health Canada's 1996 review concluded that cognitive-behavioural therapies have been shown to be more effective than other psychological treatments and to be equally effective as medication. Since that time the evidence base for CBT has grown dramatically.

The Need for a Provincial Strategy

Anxiety disorders are the most prevalent class of mental disorder in British Columbia. They exist on a continuum of severity. In B.C., nearly 400,000 individuals would meet the diagnostic criteria for an anxiety disorder in a one-year period. It is estimated that one-third of these will seek help, the first contact being, in the large majority of cases, through primary care. Approximately 30,000 individuals can be expected to experience severe and debilitating anxiety disorders and will require specialized treatment.

The World Health Organization[24] perspective that anxiety disorders "continue to be grossly under diagnosed and under treated" is applicable in British Columbia. Information from epidemiological and administrative data, and from the reports of mental health consumers, suggests evidence of unmet need among sufferers of these disorders. The consequences of this, in both economic burden and human terms, are profound and substantially preventable.

The associated disability, public health impact, and economic burden of anxiety disorders coupled with the huge potential for effective interventions provide a strong impetus to establish a comprehensive and systematic provincial strategy.

Major Components of a Provincial Strategy

The overall goals of new programs and initiatives within a provincial anxiety strategy would be:

- to reduce the incidence and prevalence of severe anxiety disorders;
- to reduce the disability and suffering associated with anxiety disorders; and
- to reduce the associated economic burden.

These goals may be achieved through ensuring the presence of early intervention programs, public education, the support of self-help groups, clinical resources for primary care providers and mental health workers, the creation of relevant curriculum at the undergraduate and graduate level in the health care disciplines,

continuing education and training opportunities for service providers, and the development of highly specialized or tertiary services for severe anxiety cases.

Specifically the recommended components of the strategy are:

Develop early intervention programs to prevent chronicity and impairment through early recognition and brief interventions. This would include secondary prevention efforts at all stages of the life span such as web-based screening and other early detection methods, delivery of self-help programs for recent onset or mild disorders, and the provision of school and home-based therapeutic interventions to children with anxiety disorders.

Establish provider support systems that provide primary care physicians and mental health centre staff with decision support, access to clinical consultation on a case basis, and training. Such systems afford access to expertise in the diagnosis and evidence-based treatment of anxiety disorders in a timely and collaborative manner using tele-health, web-based technologies and shared care mechanisms. This component of the strategy would be informed by the results the current field evaluation of continuing medical education via videoconferencing and WebCT.[34]

Support self-help groups that are in a credible position to assist and educate sufferers and their families and provide public education. Self-help programs can play a key role in the dissemination of self-management resources, the provision of psychosocial support for consumers and their families and be a source of referral information on the availability of professional resources. Consumer-run programs can also aid in public education on anxiety disorders and educate sufferers on effective interventions.

Develop a specialized, provincial care centre that could provide secondary and tertiary services for severe anxiety disorder cases, including a day program for cases of severe obsessive-compulsive disorder. The provincial care centre could also play a key role in the development of treatment protocols for severe cases and serve as a training setting for health care professionals. This Centre would provide a logical base from which to export shared care consultation to primary care physicians and mental health center staff throughout the province.

Build curriculum in professional schools at the undergraduate, graduate and continuing education levels in general medical and mental health specialty disciplines (family physicians, psychiatric residents, psychologists, social workers, nurses, etc.) to increase competencies among practitioners in the detection and treatment of anxiety disorders, based upon scientific evidence and knowledge. Educational programs with a particular emphasis on skill development in structured assessments and behavioural and cognitive-behavioural therapies are needed.

Suggested Course of Action

Ideally, the design of a provincial anxiety strategy should reflect a comprehensive life-span approach, rather than addressing specific service gaps. However there may be sound reasons for a graduated approach in which identified components are pursued as priorities in implementation of the strategy.

The next phase of strategy development will require:

- Creation of a provincial reference group including the Ministry of Health, Mheccu, ADABC and representatives from key service providers;
- Discussion and decision regarding the scope of the provincial anxiety strategy;
- Identification of priorities within the strategy;
- Completion of a more detailed description of specific component activities and initiatives and estimation of resource requirements for implementation;
- Establishment of an implementation plan and assignment of responsibilities;
- Determination of methods of evaluating/assessing impact of new initiatives;
- Development of a communication plan.

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Appendix D

RESULTS OF THE ENVIRONMENTAL SCAN

EARLY INTERVENTION STRATEGIES

Program Name	Location	Target Popn	Intervention
Queensland Early Interv. & Prev of Anxiety Project (targeted)	Australia identified through teacher nominations and self-report	7 to 14 yr olds	10-week school-based child and parent focused psychosocial intervention 6 and 24 month follow-up showed reduced rate of existing anxiety disorders and lower onset of new anxiety disorders
FRIENDS		10 to 13 yr olds	Ten weekly one hour sessions with booster sessions at 1 and 3 mos delivered in regular classroom hours plus after hours parent sessions Reduction in anxiety found; Reduced numbers with clinical levels of anxiety and reduced comorbid depression
TWD-CBT Taming Worry Dragons (developed at BCCH)	BC	6 to 12 yr olds	1. Hospital based group program directed to high risk youth 2. School-based program Therapeutic assessment followed by psycho educational self-help manual and two follow-up reinforcement sessions West Van School district planning large scale implementation with primary school children
School-based	NY	adolescents	Pilot study of 14-session group treatment program for anxious adolescents conducted at school. No control group. After Rx, half the participants did not meet dx criteria, scored lower on clinician severity ratings, and showed less avoidance. Self-reported symptoms however were not reduced
School-based prevention	Australia	adolescents	Study underway by CRUFAD; School-based skills-building program run by school counsellors for at-risk kids

SELF/PEER-HELP APPROACHES

Program Name	Location	Target Popn	Intervention
ADAM (Anxiety Disorders Assoc of Manitoba) www.adam.mb.ca	Manitoba	Adults	CBT program with self-help focus-- Administered thru 8 reg offices using workbook developed by Walker et al. St. Boniface Hospital. Groups led by volunteer consumers (cost to client). Outcomes not known. Program operates as a community self-help group but website also offers educational information
Anxiety Disorders Association of Ontario www.anxietyontario.com	Ontario	Adults	Anxiety,panic and avoidance behavior management workshops 12-week program designed to help sufferers understand their anxiety, panic, and phobias as well as develop constructive coping strategies. Outcomes not known; Offers referral service and consumer education as well. In addition, ADAO offers a volunteer companion program for persons with agoraphobic symptoms
Anxiety Disorders Association of America www.adaa.org	US	Adults	Self-help support groups available in a number of states Also offers consumer education referral service and advocacy
UBC Telemental Health Distance Education www.mheccu.ubc.ca/telementalhealth/	BC		Consumer/family rounds: Living with Anxiety Disorders Hosted by Lynn Miller
CRUFAD www.crufad.com	Australia	Adults	Offers web-based information and suggest detailed self-help strategies to control symptoms. Also provides list of specialty treatment clinics

PROVIDER SUPPORT

Program Name	Location	Target Popn	Intervention
Anxiety Review Panel	Ontario	Primary Care	Practice guidelines intended to meet the needs of family physicians for concise, relevant advice when treating anxiety disorders Degree of uptake among physicians not known
CRUFAD www.crufad.com	Australia	Clinicians	Offers resources for clinicians on the management of anxiety disorders (web-based)
CLIMATE Clinical Management and Treatment Environment www.climatetv.com	Australia	GPs	Designed to provide an innovative service delivery model to assist primary care physicians through provision of web based resource for patients with non-acute and chronic illness Modules under development include Panic Disorder
CANMAT Canadian Network for Mood and Anxiety Disorders www.canmat.org	Canada	GPs	Provides web-based diagnostic and treatment information for GPs plus CME opportunities Also provides guidelines for depression but currently restricted to depression
ADAA Anxiety Disorders Assoc of America www.adaa.org	US	Professionals	Through membership in ADAA, continuing education opportunities, newsletter, assessment tools, etc
DAIRECT Physician Information Centre www-fhs.mcmaster.ca/direct/anxiety/anxiety.html	Ontario	Physicians	Currently available for depression only. Provides 24-hour pre-recorded information on comprehensive diagnostic and treatment information. Information officer also available during business hours to respond to questions.
WHO Toolkit www.who.int/msa/mnh/ems/primacare/edukit/index.htm		Primary Care	Mental disorders in primary care educational toolkit developed as a practical tool to help primary care physicians assess and treat common mental health problems .Updated Nov 2001 Evans et al study found physicians prefer tools over guidelines
NIMH Anxiety Disorders Education Program www.nimh.nih.gov/anxiety/resource/index.htm	US	Professionals	Educational material for professionals including books, articles videotapes, brochure on panic disorder treatment, panic disorder consensus statement

HIGHLY SPECIALIZED ANXIETY CLINICS

Program Name	Location	Target Popn	Intervention
Massachusetts General Hospital Obsessive-Compulsive Disorders Institute at McLean Hospital www.mcleanhospital.org/Adult/ocdinstitute.htm	Boston	Adults aged 17+ with OCD	Offers partial hospitalization and residential care for treatment resistant cases.
The Anxiety Treatment Centre of Northern California	Sacramento	Adolescent & adults	Provides group treatment, individual treatment, intensive day treatment and hospitalization for individuals with OCD.
Anxiety Treatment and Research Centre at St. Joseph's Hospital www.stjosephs-hospital.com	Ontario	Adults	Considered a leading research and treatment center for anxiety disorders, particularly OCD, in Canada. Offers individual and group CBTon an outpatient basis
Clarke Institute Anxiety Disorders Clinic www2.camh.net/clarkepages/mood_anxiety	Ontario	Adults	Provides outpatient treatment including withdrawal programs for long-term users of anxiety medication. Some inpatient capacity
Anxiety Disorders Clinic, St. Boniface Hospital	Manitoba	Adults	Multi-disciplinary team provides group CBT and some individual therapy and pharmacological interventions where warranted
Anxiety Disorders Unit University Hospital	BC	Adults	Provides outpatient evidence-based treatment to patients in Greater Vancouver area. Also provides limited outreach services

PUBLIC EDUCATION APPENDIX D

Program Name	Location	Target Popn	Intervention
ADABC www.anxietybc.com	BC		Web-based public information service promotes awareness of anxiety disorders. Connects consumer and their families with other parties through a chat room.
CANMAT (Canadian Network for Mood and Anxiety Disorders) www.canmat.org	Canada		Web-based public education on different types of anxiety disorders. Checklists for self-diagnosis & treatment information
ADAA Anxiety Disorders Assoc of America www.adaa.org	US		Web-based public education on anxiety disorders, media-kits, newsletters, etc. Good source of info on cost impact in US
DAIRECT (Depression) and Anxiety Information Resource & Educ Centre www-fhs.mcmaster.ca/direct/anxiety/anxiety.html	Ontario		Located at McMaaster University provides access to information for the public, family members & persons with anxiety disorders. Also a telephone information line for the public but at present for depression only.
Provincial Anxiety Disorders Associations or CMHA provincial divisions (NB)	Canada		Provide info on types of anxiety disorders, occasionally tools for self-diagnosis, treatment options, lists of resource materials (books, websites) and in some cases a list of local trained professionals
NIMH Anxiety Disorders Education Program www.nimh.nih.gov/anxiety/anxiety/index.htm	US		National education campaign to increase awareness among public and health care professionals that anxiety disorders are medical illnesses that can be effectively diagnosed and treated. Also provides information on self-help groups and other resources in local area

INNOVATIVE TREATMENT

Program Name	Location	Target Popn	Intervention
Telephone therapy	BC pilot	Adults	RCT of telephone administered CBT for adults with mild to moderate OCD. Found lower drop out rate and effective in reducing OCD symptoms
Collaborative care	Seattle	Adults	RCT contrasting standard primary care with CC in which patients with panic disorder (all treated with SSRIs)received two psychiatrist visits and then only telephone contact over the course of Rx. Multi-site RCT examined benefits of a computer-assisted behaviour treatment program, clinician assisted behaviour therapy and relaxation therapy. Both computer and clinician assisted Rx better than RT
BT Steps Health Care Technology Systems www.healthtechsys.com	US	Adults	BT steps assists patients in assessing their OCD and helps them design and implement their own Rx program. Support and monitoring is provided by telephone using IVR (interactive voice response) technology. BT Steps includes a workbook to guide Rx and is available 24/7. CC patients showed significantly more improvement
CLIMATE			see above under provider support
Virtual Therapy www.virtuallybetter.com	US		Provides exposure based therapy in a virtual environment. Intended to be therapist assisted Preliminary evidence of effectiveness for social phobia, simple phobia, and PTSD.
Centre for Depression and Anxiety www.bigbangco.com/depressionanxiety/htm/index.htm	Calgary		Research facility that specializes in the treatment and research of depression and anxiety through the study of non-addicting drugs Private service?