A Continuum of Care for Eating Disorders Service Provision: A Literature Review and Environmental Scan

Prepared by Alisa Y. Harrison, Ph.D., for the BC Ministry of Health Services
January 2011
Acknowledgments

This report is a component of the BC Ministry of Health Services’ Action Plan for Eating Disorders. It has been developed by the ministry in consultation with the provincial health authorities and other stakeholders. The ministry thus wishes to acknowledge the contributions and cooperation of a variety of individuals and groups.

Ministry of Health Services
Dr. Dolores Escudero, Psychologist, Mental Health and Addictions
Gerrit Van der Leer, Director, Mental Health and Addictions

Eating Disorders Network
Co-chair, Dr. Connie Coniglio, Clinical Director, Provincial Specialized Eating Disorders Program for Children and Adolescents, Provincial Health Services Authority
Co-chair, Dr. Samantha Kelleher, Medical Director, Eating Disorders Program, St. Paul’s Hospital, Providence Health Care
Membership: Representatives from all provincial health authorities, the Ministry of Children and Family Development, and experts in the field of eating disorders prevention and intervention

Additional Consultations
A number of clinicians and researchers outside of British Columbia graciously consented to be interviewed and/or shared their expertise via e-mail, thus supporting the preparation of the cross-jurisdictional analysis and environmental scan, as well as interpretation of the research literature.

Dr. Howard Steiger, Director, Eating Disorders Program, Douglas Mental Health University Institute, McGill University, Quebec
Dr. Eric van Furth, Clinical Director, Center for Eating Disorders Ursula, Netherlands
Dr. Chris Thornton, President, Australia & New Zealand Academy of Eating Disorders
Amy Spahr, Director of Clinical Services, Remuda Ranch, USA
Dr. James Lock, Director, Eating Disorder Program for Children and Adolescents, Stanford University, USA
Jeremy Freeman, Statewide Eating Disorder Service Development Coordinator – New South Wales Health, Australia
Dr. Janet Treasure, Professor, South London and Maudsley NHS Trust, Director Eating Disorder Unit, UK
Dr. Rachel Lawson, Acting Clinical Head, South Island Eating Disorders Service, Princess Margaret Hospital, Christchurch, New Zealand
Dr. Cynthia Bulik, Director, University of North Carolina Eating Disorders Program, UNC-Chapel Hill, USA

Finally, special thanks to Melissa Sexsmith for her contributions to formatting and editing this report.
# Table of Contents

Acknowledgments ........................................................................................................... ii

Acronyms ...................................................................................................................... vi

Executive Summary ...................................................................................................... viii

1. Introduction and Background .................................................................................. 13

   A. Issue .................................................................................................................. 13

   B. What are eating disorders? ................................................................................ 13

   C. Common service models for ED treatment - Definitions ................................ 14

   D. Why offer a stepped continuum of care? ......................................................... 16

   E. Eating disorders and evidence-informed practice .......................................... 21

      Special considerations: Children and adolescents .......................................... 22

   F. First-line evidence-based modalities ............................................................... 22

      Cognitive Behavioural Therapy (CBT) .......................................................... 23

      Interpersonal Therapy (IPT) and Dialectical Behavioural Therapy (DBT) .... 24

      Family Based Therapy (FBT) ........................................................................ 24

      Nutritional counselling ..................................................................................... 26

      Complementary modalities: yoga ................................................................. 26

      Pharmacotherapy ............................................................................................. 27

2. An evidence-informed continuum of care for eating disorders ............................... 28

   A. Preventative care ............................................................................................. 29

      Evidence base .................................................................................................... 29

      Preventing the development of EDs ............................................................... 30

      Preventing relapse and supporting recovery .................................................. 34

   B. Primary care ..................................................................................................... 38

      Evidence base .................................................................................................... 38

      Screening and early intervention .................................................................... 38

      Opportunities for early intervention and primary care management ............ 39

      Collaborative and integrative primary care .................................................... 43

      School and community-based outreach and early intervention ...................... 45

   C. Secondary care ................................................................................................. 45

A Continuum of Care for Eating Disorders Service Provision iv
# Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>eating disorder</td>
</tr>
<tr>
<td>AN</td>
<td>anorexia nervosa</td>
</tr>
<tr>
<td>BN</td>
<td>bulimia nervosa</td>
</tr>
<tr>
<td>EDNOS</td>
<td>eating disorder not otherwise specified</td>
</tr>
<tr>
<td>BED</td>
<td>binge eating disorder</td>
</tr>
<tr>
<td>FU</td>
<td>follow up</td>
</tr>
<tr>
<td>RCT</td>
<td>randomized controlled trial</td>
</tr>
<tr>
<td>WL</td>
<td>wait list (as a control measure in an RCT)</td>
</tr>
<tr>
<td>FT</td>
<td>family therapy</td>
</tr>
<tr>
<td>FBT</td>
<td>family-based therapy following the Maudsley model</td>
</tr>
<tr>
<td>CBT</td>
<td>cognitive behavioural therapy</td>
</tr>
<tr>
<td>CBT-BN</td>
<td>CBT specialized for BN</td>
</tr>
<tr>
<td>CBT-E</td>
<td>CBT-Enhanced, specifically for EDs</td>
</tr>
<tr>
<td>DBT</td>
<td>dialectical behavioural therapy</td>
</tr>
<tr>
<td>IPT</td>
<td>interpersonal therapy</td>
</tr>
<tr>
<td>MI</td>
<td>motivational interviewing</td>
</tr>
<tr>
<td>OP</td>
<td>outpatient</td>
</tr>
<tr>
<td>IP</td>
<td>inpatient</td>
</tr>
<tr>
<td>IOP</td>
<td>intensive outpatient program</td>
</tr>
<tr>
<td>DHP</td>
<td>day hospital program</td>
</tr>
<tr>
<td>LOS</td>
<td>Length of stay</td>
</tr>
<tr>
<td>BMI</td>
<td>body mass index</td>
</tr>
<tr>
<td>IBW</td>
<td>ideal body weight</td>
</tr>
<tr>
<td>MHL</td>
<td>mental health literacy</td>
</tr>
<tr>
<td>PCP</td>
<td>primary care provider</td>
</tr>
</tbody>
</table>
Executive Summary

Objective

The purpose of this report is to define an evidence-informed, ideal continuum of care for eating disorders (ED) services, ranging from preventative through to tertiary care. It focuses on the eating disorders defined in the DSM-IV: anorexia nervosa (AN), bulimia nervosa (BN) and eating disorder not otherwise specified (EDNOS).

Scope: Anorexia nervosa, bulimia nervosa, eating disorder not otherwise specified

Due to resource and time constraints, this review has a limited scope precluding full consideration of binge eating disorder (BED) separately from EDNOS, the category under which it is listed in the current DSM. Other abnormal and/or maladaptive eating patterns are also out of scope. Similarly, while obesity is an important health concern, it is not an eating disorder per se, and is thus addressed only in terms of the critical links between prevention of both obesity and EDs.

Evidence base

This report draws on a thorough but not exhaustive review of recently published research, expert clinical experience and opinion, and environmental scans identifying some major treatment programs in Canada (excluding British Columbia), the United States, Europe, the United Kingdom, Australia and New Zealand. The evidence presented aligns with core components of both the American Psychiatric Association and UK’s National Institute of Clinical Excellence practice guidelines for ED treatment and intervention.

Premise: A stepped continuum of care

Overall, the evidence for preventing and treating AN, BN, and EDNOS supports a stepped continuum model consisting of multidisciplinary, integrated services, and emphasizing efficacy, efficiency, and continuity of care.

This model is based on two central premises: intervention begins with the least restrictive treatment option possible, guided by an individual’s needs and services available; and the results of a given intervention are continuously monitored and adjusted depending on the impact, with an individual stepping up or down to more appropriate treatments as required. Stepped care models appear to maximize efficient and effective resource usage, and offer interventions that are more likely to be acceptable to both individuals seeking and clinicians delivering treatment.
The report is composed of a literature and evidence review, and a supplement, which provides a cross-jurisdictional environmental scan of services.

![Steped Continuum of Care](image)

**Figure A: A stepped continuum of care for eating disorders**

**Literature and Evidence Review**

The **Introduction** describes some of the ways in which jurisdictions around the world have adopted a stepped continuum model for delivering ED services, the rationale behind this approach, and some of the challenges involved in developing evidence-informed policy and practice around ED intervention. It also defines a number of first-line modalities for treating AN, BN and EDNOS in order to set the stage for later discussions of how these interventions might be delivered within an ideal continuum of care.

**Section Two** explores a variety of service models and interventions that may be implemented across the continuum. Through comprehensive evidence reviews, it identifies the best known approaches to preventing the development of EDs as well as relapse after treatment; primary care provision; secondary treatment (community-based, outpatient, residential, day hospital, and
Figure B: Services offered at each level of care

inpatient); and tertiary care (focus on inpatient admission and outreach for individuals with severe and enduring disorders).

In terms of service models, there is no indication in the research evidence that any one of the identified approaches is inherently more or less effective than any other. The majority of individuals are likely to benefit from community-based services at the primary and secondary levels, and an ideal continuum includes a full gamut of options that may be matched with an individual’s specific needs, at the most appropriate time, for sufficient duration.

Section Three thus emphasizes that the entire continuum must be integrated and managed carefully in order to ensure that services are available and accessible, and that there is continuity of care enabling seamless transitions. It is vital to maintain effective communication between services through collaboration, liaison, and formal coordination, which may involve establishing clinical and administrative networks to provide governance and/or professional support and development.
Successive Appendices round out the first part of the report. They cover criteria for admission to various levels of care; a summary of treatments available and the strength of their empirical support; a guideline for physician-initiated family based therapy for child and adolescent AN; validated primary care screening tools; a list of URLs behind the hyperlinks in this report; and a glossary of terms.

**Supplement – International Environmental Scan**

The attached Supplement presents a cross-jurisdictional environmental scan (excluding BC) of programming, identifying the name and location of a given program, source of information included, program structure, major modalities used, and known outcomes.
Literature and Evidence Review
1. Introduction and Background

A. Issue

The purpose of this report is to define an evidence-informed, ideal continuum of care for eating disorders services, ranging from preventative through to tertiary care. The report draws on a thorough but not exhaustive review of recently published research (primarily since 2000), expert clinical experience and opinion, and an environmental scan of some major treatment programs in Canada (excluding BC), the United States, Europe, the United Kingdom, Australia and New Zealand. The evidence presented aligns with core components of both the American Psychiatric Association (APA) and UK’s National Institute of Clinical Excellence (NICE) practice guidelines for eating disorders treatment and intervention.

Overall, the evidence supports a stepped continuum model consisting of multidisciplinary, integrated services, and emphasizing efficacy, efficiency, and continuity of care.

B. What are eating disorders?

Eating disorders (EDs) are complex illnesses affecting every aspect of an individual’s life, often with long term consequences. They are psychiatric, psychological, social and medical; they interfere with normal growth and development; and they pose a major socioeconomic burden to both governments and individuals, as people who suffer depend on public services and family for their basic needs. EDs can become incapacitating, and in five to ten per cent of cases they are fatal (Wilson et al., 2007, p. 199). Indeed, eating disorders are known to be the most deadly of all mental illnesses, with a standardized mortality ratio approximately five times the rate for depression, schizophrenia and alcoholism (Doran & Smith, 2004, p. 377; see also Halmi, 2009).

Between 0.5 and 3.7 per cent of girls and women will suffer from anorexia nervosa (AN) at some point in their lives, and 1.1 to 4.2 per cent will experience bulimia nervosa (BN) (CARMHA, 2007, pp. 86-7; APA, 2000). Many more will suffer from EDNOS (Eating Disorder Not Otherwise Specified) (Machado et al., 2007). A 2002 study showed that 1.5 per cent of Canadian girls and women between 15 and 24 years old reported symptoms indicative of
an eating disorder (Canada, 2006). In 2008, nearly 60,000 British Columbians were living with a diagnosed eating disorder (BC Statistics, 2008), and many more were ill but remained undiagnosed. Although women suffer most from eating disorders, men suffer as well, and studies suggest that rates among men are rising steadily (Kjelsas et al., 2004).

This report examines a continuum of care for the eating disorders defined in the DSM-IV: AN, BN and EDNOS. AN is usually marked by restricted food intake, with or without purging behaviour (vomiting, exercising, and/or use of purgatives, laxatives and/or diuretics), as well as a decrease in body weight and continuous rumination about fat, weight and shape. BN generally involves episodes of uncontrollable bingeing and purging; individuals with BN may be normal body weight or overweight, and usually present with psychiatric co-morbidities (Thompson-Brenner & Westen, 2005a). Most people with EDs have EDNOS: they exhibit signs and symptoms of AN and/or BN, but do not meet full diagnostic criteria for either. Binge eating disorder (BED) is presently included in the DSM-IV as a subcategory of EDNOS, although future versions of the DSM may list it separately as a unique disorder unto itself. ¹

Some people with EDs may meet the criteria for a full-syndrome ED, whereas others present at sub-clinical levels and experience a variety of patterns that may be considered disordered eating. Intervention is worthwhile in every case. A sub-clinical ED may impair functioning and reduce an individual’s quality of life as significantly as a full-syndrome illness, and it is thus recommended to treat sub-clinical presentations as seriously and aggressively as any other. Indeed, researchers often urge a relaxation of diagnostic criteria in order to recognize EDs more broadly, and treat them more thoroughly and earlier in their course because evidence suggests that people have an increased chance of recovery when they receive intervention relatively early in their illness (Rome et al., 2003; Meads et al., 2001; Currin & Schmidt, 2005), and when they have access to comprehensive, specialized, multidisciplinary care (Leichtman et al., 2001; Halmi, 2009; NICE, 2004; RANZCP, 2004).

C. Common service models for ED treatment - Definitions

In addition to prevention strategies, intervention in eating disorders is commonly delivered via seven major service models: primary screening and intervention; specialized community-based services; intensive outpatient programs; specialized residential programs; day hospitalization programs; secondary or acute inpatient hospitalizations; and tertiary inpatient hospitalizations.

¹ Due to resource and time constraints, this literature review has a limited scope, which requires a strict focus on DSM-IV-defined EDs. This limitation precludes full consideration of BED separately from EDNOS, as well as other abnormal and/or maladaptive eating patterns. Furthermore, the existing evidence base demonstrates disproportionate interest in AN and BN over EDNOS. While it may be advisable when developing services to avoid such a disproportionate focus, and to provide interventions suiting a wider range of disorders, this literature review can only reflect the evidence base as it currently stands.
Subsequent sections of this report will examine each of these models in turn, highlighting its place in the continuum and the evidence supporting its efficacy.

There is great variation in the literature and in practice in how each of these models is defined. This report adheres to the following definitions of each of the major treatment models, which align with definitions developed by the Ministry of Health Services and provincial health authorities.

**Prevention:** Efforts to stop an eating disorder from developing or to prevent relapse following treatment. In terms of the former category, this report focuses on selective and targeted prevention, which is aimed at individuals considered to be at particular risk of becoming ill.

**Primary screening and intervention:** Screening, assessment, diagnosis and monitoring in a primary care setting, such as a family medical practice or supportive community program. A primary care physician may share care with mental health providers.

**Specialized community-based services:** Specialized treatment taking place in the community: e.g., therapists and/or psychiatrists in private practice, nutritionists, social workers, community treatment teams, and/or support groups.

**Intensive outpatient programs (IOP):** Intensive, specialized multidisciplinary treatment (may involve several appointments per week, as well as individual, family and/or group therapies) delivered on an outpatient basis. An individual may access this service model by engaging a multidisciplinary team within the community or through a secondary or tertiary hospital.

**Specialized residential programs:** Specialized residential services for EDs offer a level of care for individuals who are medically stable, and therefore do not meet the criteria for inpatient admission, but require more structured and intensive services than may be practical or available on an outpatient basis.

**Day hospitalization programs (DHP):** Secondary or tertiary hospitals with specialized ED treatment programs tend to offer services that are much like specialized inpatient treatment, but allow medically stable individuals to maintain greater or lesser degrees of autonomy and involvement in their normal life routines. Individuals in DHPs (interchangeably referred to as day programs, day hospitalization, and day hospitalization programs) typically spend nights in their own homes while engaging treatment in a hospital setting for at least four hours (sometimes upwards of eight hours), three to seven days per week. DHPs may be offered as a step down from inpatient hospitalization or a step up from an IOP or other community-based or secondary service.
Secondary or acute inpatient hospitalization: At times, an individual may require brief hospitalization to deal with the physical and/or psychiatric effects of her or his ED. She or he may access acute care services, or be admitted to a secondary hospital for monitoring and stabilization.

Tertiary inpatient hospitalizations (IP): Intensive inpatient services in a program designed specifically for treating EDs, generally reserved for individuals who are medically and psychologically unstable and require 24-hour care and monitoring as well as intensive treatment. Tertiary services may also include day programs or outpatient services for some individuals as a step down from higher levels of specialized care.

D. Why offer a stepped continuum of care?
EDs are difficult to treat, and significantly impair both health and quality of life. It is crucial that correct interventions match the individual’s need at the appropriate time and for sufficient duration.

Jurisdictions around the world have adopted a stepped continuum of care model because a range of research and clinical evidence demonstrates that it provides an array of service options enabling the most effective integrated, responsive, adaptive and individualized treatment (Thornicroft & Tansela, 2004; Choate & Switzer, 2009; Halmi, 2005; Halmi, 2009; Brewerton, 2009; Cummings et al., 2001; Levine & Smolak, 2009; Schaffner & Buchanan, 2008; Varchol & Cooper, 2009; Waller et al., 2003; Treat et al., 2008; Wilson et al., 2007; Olmstead et al., 2010; Bowers & Anderson, 1994; Federici & Kaplan, 2008; Lock & Gowers, 2005).

Each step in the continuum of care is interrelated, enabling individuals to access the continuum at any point, and move through services in any direction, depending upon circumstances, availability and need. Indeed, providing integrative health services is a primary benefit of a continuum approach, which maximizes the potential for continuity of care and seamless transitions across service settings. See Figures 1-1 and 1-2 below.

A stepped continuum of care is based on two central premises: intervention begins with the least restrictive treatment option possible, and the results of a given intervention are continuously monitored and adjusted depending on the impact.
A stepped continuum of care is based on two central premises: intervention begins with the least restrictive treatment option possible, based on an individual’s needs and services available; and the results of a given intervention are continuously monitored and adjusted depending on the impact, with an individual stepping up or down to more appropriate treatments as required. By emphasizing “minimal interventions,” stepped care models appear to maximize efficient and effective resource usage, and offer interventions that are more likely to be acceptable to both individuals seeking and clinicians delivering treatment (Bower & Gilbody, 2005, p. 13; see also Wilson et al., 2000). See Appendix A for a chart showing one approach to defining criteria for engagement with different levels of care within a continuum.

Prevention is fundamental to the continuum. Selective and targeted interventions that promote mental health literacy are critical to stopping EDs from developing in at-risk individuals. Coordinated follow-up care for individuals who have engaged treatment for an ED is also a crucial step in solidifying recovery and pre-empting relapse.

The majority of people who are diagnosed with EDs should be served in the primary and secondary clusters, mostly by specialized outpatient services and community-based practitioners. A minority will require more intensive secondary and/or tertiary services.

Figure 1-1: A stepped continuum of care for eating disorders
<table>
<thead>
<tr>
<th>Prevention of illness and relapse</th>
<th>Primary care</th>
<th>Secondary care</th>
<th>Tertiary care</th>
</tr>
</thead>
</table>
| • Selective and targeted interventions to prevent illness from developing | • Screening and early intervention  
• Primary care management  
• Supportive community programs | • Specialized outpatient services  
• Intensive outpatient programs  
• Private practitioners  
• Mental health teams  
• ED community teams  
• Specialized residential services  
• Day program/day hospitalization  
• Acute care  
• Secondary inpatient hospitalization | • Specialized inpatient services  
• Day program/day hospitalization  
• Outpatient services |
| • Health literacy | | | |
| • Follow-up care and relapse prevention | | | |

Figure 1-2: Services offered in each level of care
Examples of the continuum in practice: Scotland and New Zealand

**Eating Disorders Network of South East Scotland (EDNSES)**

Scotland provides a strong example of commitment to a continuum of care for eating disorders. In keeping with recommendations from the NHS, the Eating Disorders Network of South East Scotland organizes services along five tiers numbered from 0 to 4, in order to match each individual with the best, most efficient and effective service option (see Figure 1-3 below).

<table>
<thead>
<tr>
<th>Tier</th>
<th>Target</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Education and public awareness</td>
<td>Raising the level of knowledge of eating disorders in the general public; awareness of public conceptions and fears; creating a climate that understands the determinants and risk factors, and strategies that can address these.</td>
</tr>
<tr>
<td>1</td>
<td>Communities and local neighbourhoods</td>
<td>Preventing the onset of eating disorders, or implementing early-intervention strategies aimed at reducing the likelihood of an eating disorder becoming entrenched.</td>
</tr>
<tr>
<td>2</td>
<td>Primary healthcare: primary care mental health</td>
<td>Meeting the needs of people with eating disorders and their carers and significant others. Addressing the emotional problems and poor mental health exacerbated and perpetuated by the eating disorder, for sufferers and their families/carers.</td>
</tr>
<tr>
<td>3</td>
<td>Mental health services</td>
<td>Including community mental health teams (CMHTs); substance misuse teams. Meeting the needs of people with eating disorder at risk of deterioration in community settings, by supporting and developing specialist skills to be delivered by CMHTs.</td>
</tr>
<tr>
<td>4</td>
<td>Specialist services: outpatient (Anorexia Nervosa Intensive Treatment Teams) and inpatient</td>
<td>Meeting the needs of people with severe eating disorders, their carers and significant others, regarding ongoing intensive support, care and treatment.</td>
</tr>
</tbody>
</table>

Moreover, Scotland has adopted a national accreditation process through Eating Disorders Education and Training Scotland (EATSc) for ensuring consistent quality of care among eating disorders professionals. Supported by NHS Education Scotland, the accreditation process can be completed independently by qualified professionals, designating these individuals as suitably...
experienced and trained to offer eating disorders care that meets national standards of quality and safety.

**New Zealand’s Northern Region**

The Northern Region of New Zealand committed in 2008 to developing an integrated continuum of care, which “supports delivery of safe and effective interventions, regardless of the clinical pathway followed” (New Zealand, 2009, p. 6). The continuum promises to provide the bulk of support at the community level, and to develop more intensive, specialized services as required. Most people will access treatment within general mental health services, and specialized regional services should be delivered in dialogue with local ones (Northern DHB Support Agency, 2009). An outline of the proposed continuum divides services into three broad levels, depicted in Figure 1-4 below.

<table>
<thead>
<tr>
<th>Distributed according to increasing complexity of condition/need</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Components of care</strong></td>
</tr>
<tr>
<td>Prevention</td>
</tr>
<tr>
<td>Setting of care</td>
</tr>
<tr>
<td><strong>Level one</strong></td>
</tr>
<tr>
<td>Types of services</td>
</tr>
<tr>
<td>• GPs</td>
</tr>
<tr>
<td>• Primary health organizations</td>
</tr>
<tr>
<td>• Schools consultants</td>
</tr>
<tr>
<td>• Community and volunteer sector</td>
</tr>
<tr>
<td>• NGOs</td>
</tr>
<tr>
<td>• Youth services</td>
</tr>
<tr>
<td>• Indigenous health providers</td>
</tr>
<tr>
<td>• Public health nurses</td>
</tr>
</tbody>
</table>

*Figure 1-4: Continuum of care, Northern Region of New Zealand. Source: Adapted from New Zealand, 2009, p. 5.*
Stakeholders associated with developing services in New Zealand recognize that it is critical to build “local expertise and capacity to support a range of services including initial screening, early intervention, care planning, health monitoring, evidence-based treatment, service referrals, and continuity of care” (New Zealand, 2009, p. 6). They define an integrated eating disorders service according to the following targets and the government aims to enact policies that enable their realization (reproduced verbatim from New Zealand, 2008, p. v):

- Provide seamless service delivery across primary, secondary and tertiary settings, easy transitions between services, and continuity of care
- Provide effective early intervention
- Provide a wider range of services and a multi-disciplinary approach to care
- Enable service users to actively participate in the planning of their own recovery
- Support service users as close to their home as possible

The degree to which the Northern Region is currently following the outlined continuum of care is not clear, although anecdotal evidence, including a discussion with the current president of Australia’s Academy of Eating Disorders, suggests that much of its potential remains unfulfilled. New service components, including a day program and residential unit, opened in October 2010, linking in with existing outpatient provisions (personal communication with Chris Thornton, 8 October 2010).

**E. Eating disorders and evidence-informed practice**

There appears to be a broad consensus in the literature on ED treatment that ideal interventions are multidisciplinary, comprehensive and specialized. They are best distributed along a stepped continuum of care that is undergirded by strategies for preventing both illness and relapse; that encourages early intervention; where community or outpatient treatment is the most common delivery model; and which also includes more intensive forms such as residential treatment, and day and inpatient hospitalization. Each step of the continuum loops back with coordinated after-care services.

However, this consensus is not based solely on a consideration of empirical evidence of ‘what works.’ Despite decades of research, when it comes to EDs, developing service models and deciding what treatments to use tends to be as much a function of clinical judgment and resource availability as of clear evidence of efficacy (Striegel-Moore, 2005; Fairburn, 2005). One challenge is the nature of the evidence base itself, which

---

*Ideal interventions are multidisciplinary, comprehensive and specialized.*
is limited by poor adherence rates, small samples, and a dearth of rigorous controlled trials. As a result, researchers and clinicians are still searching for better answers to questions about how to prevent and assist recovery from an eating disorder (see Appendix B for a table summarizing the strength of the evidence base). This report draws on some of the best evidence available; however, relative to other illnesses, the evidence base has serious limitations.

Another challenge is the apparent gap between research and practice, common in a range of contexts, and certainly an issue in eating disorders intervention. A continuum of care approach may help to close that gap by improving access to and dissemination of specialized treatments; distributing interventions more appropriately among individuals in need; and supporting clinicians’ development by building into the system more opportunities to become familiar with and confident in delivering empirically validated modalities. Similarly, it may be useful to support a stronger dialogue between researchers and clinicians in order to promote research that may be understood as clinically relevant (Clinton, 2010).

**Special considerations: Children and adolescents**

When considering the ideal approach to eating disorders prevention and intervention, it is important to recognize that most existing research is based on adult samples, with findings that may not always generalize to children and adolescents.

There is some limited evidence suggesting that a stepped, continuum model works well with children and adolescents (Waller et al., 2003), and research demonstrates clearly that family members should always be involved in developmentally appropriate treatment (Gowers & Bryant-Waugh, 2004; Varchol & Cooper, 2009). However, more specific details about what works and when are fairly murky. Thompson-Brenner (2010) explains, “At this time, we do not know what treatments are widely utilized with adolescents with EDs, the response of adolescents to these treatments, predictors of treatment response, or the relationship between treatment approach and treatment response” (p. 279).

**F. First-line evidence-based modalities**

The following are the most effective known interventions for eating disorders. They may be complemented by additional interventions depending upon individual need, resource availability and clinical judgment, and they may be disseminated in a variety of service settings and at every level of care (preventative, primary, secondary and tertiary).

---

2 This recommendation is distinct from advocacy of formalized family based therapy, which is effective for some individuals with EDs (primarily child and adolescent AN) but not others.
Note that there exists a wide range of treatments that are potentially beneficial, with which clinicians and/or programs have had distinct success. However, this literature review only reports on treatments that have been widely validated in the research literature and accepted in a variety of contexts as best or leading practices.

### Cognitive Behavioural Therapy (CBT)

The evidence supporting CBT’s efficacy for treating EDs is relatively strong, particularly for BN. A systematic intervention review by the Cochrane Collaboration, covering 48 studies and 3045 subjects confirms that CBT is the most effective known psychotherapeutic intervention for BN, and one of the better psychotherapeutic interventions for related EDs such as EDNOS (Hay et al., 2009). Comprehensive literature reviews (Cooper & Fairburn, 2010; Wilson, 2005) echo this finding, and a well-designed, pragmatic RCT (Katzman et al., 2010, n=225) has found CBT effective in both group and individual formats. Researchers estimate that CBT helps between 30 and 50 per cent of those who receive it, and that individuals maintain treatment effects for at least one year following completion (Wilson, 2005).

CBT-Bulimia Nervosa (CBT-BN) and CBT-Enhanced (CBT-E) are specialized variants of CBT for EDs. CBT-E focuses on “the processes that maintain psychopathology rather than those responsible for its development” (Cooper & Fairburn, 2010, p. 243) and addresses a variety of elements of an ED to do with self-evaluation and mood. CBT-E is recommended specifically for use with EDNOS, and it remains unclear whether or not it is superior to CBT-BN for treating BN (Cooper & Fairburn, 2010).

Although CBT is considered the gold standard for treating BN, access is uneven. All variants of CBT require specialized training to deliver, which limits their dissemination (Wilson, 2005), and according to a fairly large survey of clinicians (n=268), even trained practitioners only use CBT about one-third of the time (Simmons et al., 2008, p. 349). Whereas much of the evidence supporting CBT’s efficacy has been gleaned from strong RCTs, clinicians tend to make adjustments in practice (Schaffner et al., 2008), which means that the CBT-inspired therapy typically delivered in the community may differ somewhat from the protocol outlined in the treatment manual. For instance, a naturalistic sample of clinicians has shown that CBT disseminated in community settings tends to go on longer than treatment manuals recommend, often because individuals engaging treatment have comorbidities that require additional therapy (Thompson-Brenner & Westen, 2005a). Nonetheless, at least one trial in a ‘real world’ setting suggests that CBT is effective for BN and EDNOS (Katzman et al., 2010).

One benefit of CBT, which may assist with dissemination, is that experimental evidence and clinical observation have shown that it may be delivered with equal impact individually and in
groups (Katzman et al., 2010; Barth & Wurman, 2006), and via the Internet and other telehealth technologies (Barak et al., 2008; Mitchell et al., 2008; Sanchez-Ortiz et al., 2010; Fernandez-Aranda et al., 2009; Marone et al., 2009; Pretorius et al., 2009).

Clinicians may receive training to deliver CBT from a number of sources, including the National Association of Cognitive Behavioural Therapists and Christine Padesky’s two-day CBT Boot Camp workshops.

**Interpersonal Therapy (IPT) and Dialectical Behavioural Therapy (DBT)**

According to recent comprehensive literature reviews (Tanofsky-Kraff & Wilfley, 2010; Wilson et al., 2007; Hay et al., 2009; Wilson & Shafran, 2005), at present, interpersonal therapy (IPT) is the only psychotherapeutic modality that researchers consider a reasonable alternative to CBT (see also Arcelus et al., 2009; and Choate & Switzer, 2009 for additional limited experimental evidence). Dialectical behavioural therapy (DBT) is also understood to be effective as an adjunct therapy or integrated with CBT (Choate & Switzer, 2009; Chen et al., 2008; Brewerton, 2009).

IPT is a good alternative to CBT for BN, though it is not clear if it takes more or less time to show equivalent results. Like CBT, IPT has modified variants for BN and for BN with comorbidities (Hay et al., 2009; Arcelus et al., 2009).

Significant strong data gleaned from literature reviews (Keel & McCormick, 2010; Zerbe, 2010), a systematic review (Lewis et al., 2008), and one preliminary RCT (Dare et al., 2001) indicates that adults with AN may engage individual psychotherapies including CBT, IPT and psychodynamic psychotherapy with varying degrees of success.

**Family Based Therapy (FBT)**

Family based therapy (FBT) is a treatment protocol developed at the Maudsley Hospital in London, England, and is now widely studied and practiced in jurisdictions around the world, primarily for treating adolescent AN. FBT requires that parents take full responsibility for restoring their child’s weight and encouraging resumption of normal eating. As a young person responds to treatment, she or he will regain increasing control over her or his own life. In spite of the time commitment required and the challenges of engaging such a treatment method, strong evidence suggests that both young people and their parents are satisfied with the process and outcomes of FBT, and believe it is an acceptable treatment (Eisler et al., 2010; also see preliminary findings in Courturier et al., 2010).
Although a recent systematic review (Fisher et al., 2010) questions whether or not existing evidence supports the superiority of FBT over other modalities for AN, numerous studies assert its validity. Indeed, a variety of comprehensive literature reviews (Keel & Haedt, 2008; Lock & Fitzpatrick, 2009; Varchol & Cooper, 2009; Lock & Gowers, 2005; Eisler, 2005; Eisler et al., 2010; Loeb & le Grange, 2009; Wilson et al., 2007); additional experimental studies (Eisler et al., 2007; Paulson-Karlsson et al., 2009); and clinical assessments (Bean et al., 2010; Doyle et al., 2009) show that FBT is the only empirically-validated treatment for child and adolescent AN. It is thus considered the best available intervention for this population, and is recommended as a first-line treatment.

Research demonstrates that FBT has numerous benefits. Thompson-Brenner (2010) finds that it works well in a naturalistic, community-based sample of adolescents seeking treatment for AN, and according to Loeb & le Grange (2009), multiple RCTs, open clinical trials and clinical case series demonstrate FBT’s long-term benefits, which include preventing hospitalization and achieving full weight restoration on an outpatient basis. In a small follow-up RCT, Eisler et al. (2007) describe FBT’s long-term efficacy, emphasizing “that those who respond well to family therapy generally stay well” (p. 558).

FBT requires that parents invest considerable time in their child’s treatment, which may have complicated implications for some families (for instance, those who require two full-time income-earners or are headed by a single parent). Clinically, however, FBT is practical. It is as effective in a shortened format (10 sessions) as it is in its full course (20 sessions); it is effective cross-culturally; and its clinical components can be delivered by a range of practitioners (Loeb & le Grange, 2009; Ma & Lai, 2007). Researchers have also recently identified modifications that enable dissemination in families with high levels of criticism, and for multiple family groups (Eisler et al., 2010).

Although there is no evidence supporting the use of FBT with adult AN (Bulik et al., 2007), one strong RCT (le Grange et al., 2007), a second good randomized, uncontrolled study (Schmidt et al., 2007) and several other analyses (le Grange & Lock, 2010; Loeb & le Grange, 2009; le Grange et al., 2003) suggest that it shows promise for treating adolescent BN in both early intervention guided self-help and regular face-to-face treatment formats. In addition, researchers contend that it may be adapted for use with EDNOS (Rhodes et al., 2009).

Practitioners must be trained to deliver FBT. Training is available from a number of sources, including the Training Institute for Child and Adolescent Eating Disorders operated by the leading researchers and clinicians, James Lock and Daniel le Grange.
Example: University of California-San Diego Intensive Family Therapy (IFT) Program

Along with more typical intensive outpatient and day hospitalization services, the University of California, San Diego’s Eating Disorders Program offers a unique 5-day Intensive Family Therapy (IFT) program, designed for people who do not live near expert treatment. The program is intended to treat families experiencing adolescent AN, and involves about 30 hours of treatment delivered between Monday and Friday of one week.

Although it has not been studied through formal research methods, the program’s website states that the IFT “appears to minimize the need for hospitalization and maximizes good outcome.”

The IFT began in November 2006, and has served families from all over North America. Follow-up with the first 17 families served shows good results, with evident success in “breaking the cycle of chronicity.”

Nutritional counselling

Although it is not recommended in the research literature as a stand-alone treatment for EDs, nutritional counselling is widely supported as a valuable adjunctive therapy by major professional bodies such as the American Dietetic Association (Henry et al., 2006), expert opinion (Reiter & Graves, 2010), and a range of strong empirical evidence (Pike et al. 2003; Hay et al., 2003; Wilson et al., 2007). Nutritionists play a vital role in multidisciplinary treatment teams.

Complementary modalities: yoga

There is growing evidence for the effective use of yoga delivered in a therapeutic manualized form as a complementary modality in the treatment of adolescent AN, BN and EDNOS. Yoga practice may also assist adults with EDs because of its emphasis on mindfulness (Rain Carei et al., 2010). Studies indicating yoga’s potential benefits include a good-sized, community-based RCT (McIver et al., 2009, n=90); a smaller, more limited RCT (McIver et al., 2009); two controlled, comparative studies, which replicate each other’s findings (Daubenmier, 2005); and several exploratory discussions (Dale et al., 2009; Douglass, 2009; Wingate, 2009).
Pharmacotherapy

Adults engaging outpatient treatment for AN may begin a course of psychotropic medications in order to treat comorbid disorders. Pharmacotherapy alone is inappropriate for AN, however, and there is no empirical support for using psychotropic medications to treat children (see the comprehensive literature reviews by Kaplan & Howlett, 2010, and Reinblatt et al., 2008; and a systematic review by Bulik et al., 2007).

Pharmacotherapy is indicated as an adjunctive therapy for BN, which may be initiated in primary or secondary care. There is strong empirical evidence suggesting the efficacy of a single antidepressant, with the first-line treatment being a daily dosage of fluoxetine (Bacaltchuk & Hay, 2003; Halmi, 2005).

Summary of evidence-based modalities:

- Group cognitive behavioural therapy (CBT) is effective with BN.
- CBT-BN is recommended for treating both adolescent and adult BN.
- CBT delivered online or via telehealth seems to be clinically- and cost-effective for treating some EDs, particularly BN.
- FBT is recommended for treating adolescent AN; in general, child and adolescent interventions should involve families.
- There is growing evidence supporting FBT for adolescent BN.
- Interpersonal therapy (IPT) is a valid alternative to CBT for treating BN.
- CBT-E is currently the most effective known treatment for EDNOS.
- Fluoxetine is recommended for treating adult BN along with psychotherapy.
- Antidepressants are recommended only as an adjunctive therapy for AN, largely for comorbid psychiatric conditions.
- There is no empirical support for using psychotropic medications to treat paediatric EDs.
- Nutritional counselling is recommended as an adjunct to psychotherapy and/or other therapeutic supports.
- Yoga, delivered therapeutically, shows promise as an effective complementary modality for treating EDs.
2. An evidence-informed continuum of care for eating disorders

Based on a synthesis of research literature and commentary from experts in the field, as well as a scan of current practice around the world, this report identifies the best known approaches to providing a continuum of care for eating disorders prevention and treatment.

A broad reading of the literature on effective treatments suggests that the best approach to treating AN, BN and EDNOS involves a variety of service models: preventative; community-based; outpatient; residential; and day and inpatient hospitalization. There is no indication that any one of these approaches is inherently more or less effective than another (Meads et al., 2001; Fairburn, 2005; Lamb, 2009; RAN ZCP, 2004), and this report does not prioritize any single part of the continuum. Rather, the purpose of this literature review is to identify a variety of interventions that have demonstrated validity as part of a complete ED treatment continuum.

Researchers and practitioners are still exploring the outcomes of various standard interventions, including how best to encourage and support long term recovery (Cockell et al., 2004). In the meantime, existing evidence supports offering a range of treatment options and individualizing treatment approaches in recognition of the degree to which effective interventions vary across clients and contexts.

Each of the following sections begins with an overview of the evidence base, indicating the strength of the literature consulted and types of studies included. The overview is followed by discussions of leading practices identified in the literature, and/or significant issues to consider when making decisions about service provision and delivery. Finally, each section ends with a table summarizing the main conclusions drawn from the literature consulted.
A. Preventative care

It is worthwhile to take steps to prevent EDs from developing, as well as to prevent relapse among individuals in recovery. Research indicates a variety of strong preventative interventions that may be delivered in schools and other group settings as well as over the Internet, and highlights strategies that may support individuals in maintaining their recovery.

Evidence base

The literature on preventing EDs from developing is relatively strong. Rigorous meta-analyses (Stice et al., 2008; Cororve Fingeret et al., 2006; Newton & Ciliska, 2006) and systematic reviews (Austin, 2000; Pratt & Woolfenden, 2002; Grave, 2003) synthesize the results of multiple controlled studies. A variety of individual RCTs (Stice et al., 2008a; Stice et al., 2008b; Matusek et al., 2003; Mitchell et al., 2007; Stice et al., 2009; Austin et al., 2005), most of which involve large samples, plus a selection of less rigorous clinical trials (Becker et al., 2008; Noordenbos & Van Duyn, 2009; Debate et al., 2009; Tanofsky-Kraff et al., 2005; Harjumen & Rich, n.d.) offer a clear indication of which types of preventative interventions work best, and with what audiences. Literature reviews and commentary by well-known experts (Levine & Smolak, 2008; Levine & Smolak, 2009; Stice et al., 2010; Schwartz & Henderson, 2009; Ikeda et al., 2006; Adair et al., 2007; Haines & Neumark-Sztainer, 2006; Turnbull, 2008; O’Dea, 2005; Neumark-Sztainer, 2005; Smolak et al., 2001) add nuance to the empirical evidence base.

The research evidence is less clear when it comes to identifying methods of preventing relapse. The strongest available empirical data focuses primarily on the utility of CBT for preventing relapse in adult AN (Kaplan et al., 2009; Pike et al., 2003; Pike et al., 2010), or is drawn from systematic reviews addressing the overall efficacy of a range of interventions (Bulik et al., 2007; Durbin et al., 2007). Less rigorous experimental evidence derives from small (McFarlane et al., 2008) or limited (Schaffner & Buchanan, 2008; Steinhausen, 2002; Carter et al., 2009) studies. Two qualitative explorations (Cockell et al., 2004; Douglass, 2009) offer useful analyses of the challenges inherent in relapse prevention and some innovative approaches for supporting recovery. In particular, Cockell et al. (2004) provide insightful expert commentary, suggesting concrete strategies clinicians might employ to assist individuals in maintaining their recovery following intensive treatment.
Preventing the development of EDs

Interventions preventing the development of eating disorders occupy a critical step in the continuum of care. A consensus seems to exist that well-designed prevention programs do not pose an iatrogenic risk, and that successful programs seem to decrease “attitudinal risk factors” while promoting “healthier weight control behaviours” (Stice et al., 2007, p. 224; see also Stice et al., 2008b; Stice et al., 2010; Cororve Fingeret et al., 2006; Pratt & Woolfenden, 2002; Grave, 2003).

Prevention programs fall into two broad categories: universal and selective. According to Levine and Smolak (2009):

Universal prevention programs seek to change and reinforce government policies, social institutions, and common cultural practices in order to improve the ‘public health’ of extremely large groups of citizens. Selective prevention also has a public policy component, but the primary audience consists of people who are nonsymptomatic but are considered at risk (pp. 296-7).

Levine and Smolak (2008) and Smolak et al. (2001) urge strong support for universal strategies that take a health promotion approach. However, the empirical literature indicates significant advantages to focusing on selective and targeted intervention delivered via interactive means (Stice et al., 2007; Mitchell et al., 2007; Cororve Fingeret et al., 2006; Matusek et al., 2004).

Selective prevention programs appear more effective because they target people in the prodromal stages of an ED or who exhibit risk factors for developing an ED. Researchers suggest that at-risk adolescents, for example, may be “more likely to engage in the prevention program because they are more motivated and therefore may be more likely to show a consequent reduction in symptoms” (Stice et al., 2008b, p. 615).

Improving mental health literacy (MHL) may be an important goal of both prevention and early intervention strategies. In both large and small community-based studies of women with and without EDs, Mond et al. (2008 and 2009) find that, particularly for individuals at risk or suffering from variations of BN, strong MHL can lead to earlier intervention, whereas poor MHL may be “a factor in low or inappropriate treatment-seeking” (Mond et al., 2008, p. 571). Individuals with BN-type disorders tend not to “receive appropriate treatment,” and could thus find added benefit in programs that “address individuals’ recognition of the adverse effects of eating-disorder psychopathology on quality of life” (Mond et al., 2009, p. 842).
Dissonance interventions

Healthy weight interventions, which focus on dietary improvements and exercise in order to achieve body satisfaction and decrease unhealthy behaviors, can be useful, particularly for preventing weight gain. However, in terms of interfering with the development of clinical EDs, there is considerably more support for dissonance interventions, which researchers have shown undergird some of the most successful selective prevention programs (Stice et al., 2008a; Mitchell et al., 2007).

Dissonance interventions incorporate activities and exercises that ask participants to critique the thin ideal in order to reduce its internalization and decrease body dissatisfaction, dieting, negative affect, and ED symptoms. Participants “voluntarily engage in verbal, written, and behavioral exercises” such as writing essays and engaging in role plays, which “theoretically produce psychological discomfort that motivates participants to reduce pursuit of the thin ideal…” (Stice et al., 2009, p. 825). The significant feature of the intervention is its active delivery, as the activities are what produce the dissonance that leads to change (Becker et al., 2008).

One RCT involving a large sample of adolescent girls demonstrated that after participating in a dissonance intervention, subjects “showed a significantly lower risk for onset of clinically significant eating pathology relative to assessment-only controls (6% versus 15%), which amounts to a 60% reduction in the number of expected cases that would have theoretically emerged in this high-risk sample in the absence of intervention.” As far as the researchers were aware, “no other eating disorder prevention program has been shown to reduce risk for future onset of clinically significant eating pathology” (Stice et al., 2008a, p. 337).

A “real world” test of a dissonance-based program, where participants were guided through the intervention by school staff, showed slightly smaller effects than in previous efficacy trials, but overall indicated that the program is broadly effective provided facilitators are properly trained (Stice et al., 2009).

Empirically evaluated prevention programs include:

- Girl Talk
- Student Bodies
- Body Project
- Healthy Weight
- Planet Health
- Weight to Eat

(Source: Stice et al., 2007)
Internet-based targeted prevention
Although one meta-analysis (Newton & Ciliska, 2006) argues that it is too early to make definitive conclusions about the efficacy of Internet-based prevention, there is a growing body of evidence including expert literature reviews and discussions (Paxton & Franko, 2010; Luce et al., 2003) and preliminary clinical trials (Zabinski et al., 2001; Luce et al., 2003; Robinson & Serfaty, 2001) supporting its use for selective programs. Internet-based programs have the advantage of being more widely accessible than face-to-face interventions, and at least one strong RCT has shown that they can be adapted successfully for use among different cultural groups (Jacobi et al., 2007). Using the Internet may also facilitate self-management as individuals may participate in virtual group therapy or support sessions, as well as individual therapy using e-mail, instant messaging, texting and other electronic communications tools.

School-based prevention programs
Schools are an appropriate place to deliver both universal and selective prevention programs to young people. Grave (2003) and Smolak et al. (2001) point out that eating disorders are at least partly culturally based. It makes sense, therefore, to take advantage of cultural institutions, such as schools, where information can be disseminated to a wide variety and large number of people by individuals, such as teachers, who may be influential on both an individual and policy level. Grave (2003) includes the following suggestions for optimizing “implementation and evaluation of school-based eating disorder prevention programs” (p. 587):

- The program must be taught within school hours with lessons limited to 50 minutes;
- Facilitators require extensive training;
- Programs should be manualized;
- Program fidelity should be evaluated;
- Use a control group in a separate site to facilitate evaluation;
- Administer the program to a wide variety of people;
- Plan routine booster sessions;
- Use defined and appropriate qualitative and quantitative outcome measures for evaluation.
- Conduct routine short- and long-term follow-up assessments.

Furthermore, Smolak et al. (2001) indicate that teachers will be more engaged in prevention programs when they are involved in their design; are persuaded to use a complete curriculum that is responsive to their needs; and by combining prevention of eating disorders with other pertinent child and adolescent health concerns such as depression and obesity.
**Integrating eating disorders and obesity prevention**

Expert, evidence-based commentary (Haines & Neumark-Sztainer, 2006; Neumark-Sztainer, 2005; Adair et al., 2007; Smolak et al., 2001) and at least one sizeable RCT (Austin et al., 2005) suggest that it is beneficial to integrate obesity and eating disorders prevention.

In an expert discussion derived in part from data from a large (n=4,746), population-based study of adolescents, Neumark-Sztainer (2005) argues that integrated obesity and eating disorders intervention has several distinct advantages, including being both “time and cost-effective” by enabling one program to do the work of two (p. 222). Integrated prevention is further indicated because of shared risk factors between eating disorders and obesity, and the relative commonality of cross-over between these weight-related conditions (Haines & Neumark-Sztainer, 2006; Neumark-Sztainer, 2005; Austin et al., 2005).

It is clear that there is a relationship between overweight and obesity on the one hand, and subsequent onset of an eating disorder on the other, though experimental research (Tanofsky-Kraff et al., 2005) and an evidence review (Turnbull, 2008) confirm that the causal pathways remain largely undefined. One study involving interviews with 105 overweight children posits a link between childhood dieting and loss of control eating, and suggests that dieting and childhood obesity are risk factors for developing eating disorders (Tanofsky-Kraff et al., 2005). Haines and Neumark-Sztainer (2006) identify a series of shared risk factors: dieting; media use and internalization of dominant social messages about food, weight, eating and shape; body dissatisfaction; experience of weight-related teasing.

Some researchers express concerns that obesity prevention is iatrogenic (Harjunken & Rich, n.d.; O’Dea, 2005). However, the literature does not support the notion that it leads to a higher prevalence of EDs (Schwartz & Henderson, 2009; Ikeda et al., 2006).

While more research is required to identify the best, most effective approach, there is a growing belief that prevention of obesity and eating disorders “have the potential to be complementary” (Schwartz & Henderson, 2009, p. 785). This is particularly true when programming is well-designed and evidence-based; is sensitive to the emotional aspects of discussing weight, eating and body shape; takes care not to cross over from prevention to intervention, particularly when practitioners are not qualified clinicians; emphasizes healthy behaviour; and confronts the variety of influences on individual body weight and eating behaviour (social, cultural, genetic, and so on) as well as the conflicting environmental messages with which individuals must contend (i.e., the simultaneous prescription to reduce obesity and accept diverse body sizes) (Ikeda et al., 2006; Schwartz & Henderson, 2009; Adair et al., 2007; Turnbull, 2008; Neumark-Sztainer, 2005).
Examples of integrated prevention programs

Ontario has had some success in developing integrated prevention programming, including the Healthy Schools-Healthy Kids program, which Adair et al. (2007) discuss in their overview of integrated prevention. Another program, Planet Health, was designed to prevent obesity, but one RCT has shown it is effective for both obesity and eating disorders prevention. Austin et al. (2005) explain Planet Health’s distinct features that likely account for its success:

…it focused exclusively on healthful nutrition and physical activity and reduced television viewing and did not explicitly mention eating disorders, weight control, dieting, body image, or overweight. Weight status and obesity were not explicitly addressed in the curriculum in an effort to avoid stigmatizing overweight youth (p. 228).

A third program, New Moves, uses messages developed in ED prevention and aims them at preventing obesity. Preliminary evaluations of New Moves have been strong, possibly because it takes a positive approach intended to empower the girls it targets, who are either overweight or at risk of overweight: “The goals of New Moves are to (a) help adolescent girls function in a thin-oriented society and feel good about themselves; (b) help girls avoid unhealthy behaviours aimed at weight loss; and (c) bring about changes in eating behaviours and physical activity to improve physical fitness and maintain weight” (Neumark-Sztainer, 2005, p. 225).

Preventing relapse and supporting recovery

Setbacks are a normal part of recovery: recovery is a process rather than an end state, and the road “is often slow and bumpy” (Cockell et al., 2004, p. 528). Qualitative evidence suggests that individuals with EDs understand this. For instance, some who were interviewed in the midst of relapse following completion of an inpatient or day hospital admission still “considered themselves to be ‘in the process of recovery,’” (Federici & Kaplan, 2008, p. 5) despite the setbacks they were experiencing.

In one prospective study using a small transdiagnostic sample (n=47), 41 per cent of individuals relapsed by 12 months following intensive treatment. Key predictors of relapse in this group
included severe pre-treatment calorie restriction; higher residual symptoms at discharge; slower response to treatment; and higher weight-related self-evaluation (McFarlane et al., 2008).

Individuals are most vulnerable to relapse in the period immediately following intensive treatment. In a recent literature review, Pike et al. (2010) state, “A recent research study found that even a small amount of weight loss following the achievement of target weight is strongly associated with subsequent relapse in AN. Thus, it is essential that therapists educate patients about these issues” (p. 97). Other researchers concur, based on evidence gleaned from both a systematic review (Durbin et al., 2007) and well-designed RCT (Kaplan et al., 2009).

Individuals who have engaged treatment for an ED may benefit from learning tools and strategies that allow them to manage their own recovery by recognizing and responding to signs of potential relapse (Slade, 2009).

**Personal recovery**

Although most mental health services focus on clinical recovery, which involves “getting rid of symptoms, restoring social functioning, and in other ways ‘getting back to normal’,” there may be strong value in focusing at least as much on personal recovery. Personal recovery emphasizes several main ideas: that people who have experienced mental illness possess a certain type of expertise that deserves respect; that an individual is taking steps to understand the meaning of the illness in his or her life; and that an individual is constantly exploring ways in which he or she may grow within or beyond the confines of his or her illness (Slade, 2009).

The Personal Recovery Framework is based on four domains of recovery (hope, self-identify, meaning, and personal responsibility), as well as four recovery tasks: developing a positive identity; framing the ‘mental illness’; self-managing the mental illness; and developing valued social roles. Key steps to support a Personal Recovery Framework include providing assistance to individuals as they engage in the four tasks, and emphasizing the importance of developing strong, “identity-enhancing” relationships (Slade, 2009).

**Building support**

Cockell et al. (2004) identify a variety of factors that either support or hinder ongoing recovery. Supportive factors include: maintaining connections with social supports (professionals and
family or friends); applying cognitive and affective skills learned in treatment; and focusing on life beyond the ED. The foremost hindering factors appear to be: losses, self-defeating beliefs, and managing the stresses of everyday life outside of treatment (i.e. diet culture, environmental challenges, moving home).

Attention to continuity of care can assist with building sufficient support in a wide variety of ways, including maintaining therapeutic relationships across service transitions, planning for resumption of old activities or involvement in new ones following completion of treatment, and ensuring that all caregivers understand and encourage newly-developed healthy life skills. Indeed, clinicians and other professionals can take a proactive role in supporting recovery by offering follow-up care that is planned well in advance of discharge, helping individuals to develop effective coping skills, and encouraging individuals to focus on aspects of life that they find most meaningful (Cockell et al., 2004).

**After-care**

After-care is crucial following intensive treatment. An 8.3-year, multi-site follow-up study with 212 adolescents concluded that outcome improves with duration of after-care (Steinhausen, 2002). Schaffner and Buchanan (2008) suggest, based on a comparison of pre- and post-treatment data for 77 women, that individuals who have completed inpatient treatment for AN should step down to a minimum of 12 months outpatient treatment. Moreover, those who show the “greatest clinical gains” in inpatient “may require more intensive aftercare than those who report less dramatic improvements” (p. 380).

There is some support for the use of CBT to prevent relapse post-hospitalization for adult AN (Pike et al., 2003; Pike et al., 2010; Bulik et al., 2007; Carter et al., 2009). To be useful in this context, it is probably necessary to have approximately 50 sessions over the course of one year (Pike et al., 2010, p. 87). One exploratory study has also suggested that therapeutic yoga may help to prevent relapse after inpatient or residential treatment for AN (Douglass, 2009).

**Psychosocial rehabilitation (PSR)**

Psychosocial rehabilitation (PSR) may also assist individuals who are in treatment for an ED with building the skills necessary to function as full members of their communities, and to explore their personal relationship with the process of recovery. PSR has the potential to empower by focusing on the individual’s strengths and capacity for self-management, and providing opportunities for people to become involved with their communities, improve their own living conditions, and find meaningful connections through social activities and work (Longo et al., 2002; King et al., 2007).
### Mental Health Commission of Canada: Developing recovery-oriented mental health services

The Mental Health Commission of Canada (MHCC) has acknowledged the value in embedding principles of recovery in all mental health policy and practice. Indeed, recovery is a central component in the MHCC’s recent strategic plan, *Toward Recovery and Well-Being: A Framework for a Mental Health Strategy for Canada* (2009), and the MHCC is currently in the early stages of developing recovery guidelines, which may assist provinces and territories in implementing the national framework.

In the meantime, the U.S. state of Connecticut’s *Practice Guidelines for Behavioral Health Care* are widely used to support a recovery focus in mental health services (Slade, 2009).

### Preventative Care - Research Conclusions at a Glance:

- Psychoeducation and prevention programs do not cause harm.
- Improved mental health literacy may maximize the chance of early and appropriate intervention.
- Prevention efforts need to confront the social context for EDs.
- There are advantages to integrating obesity and ED prevention.
- Effective prevention programs may include psychoeducational, healthy weight and cognitive dissonance components.
- Targeted and selective prevention programs are beneficial, and largely better than universal programs.
- More prevention efforts are needed for younger audiences.
- Peer- and patient-led prevention programs can be effective.
- Internet-based prevention and support programs seem effective.
- The period after discharge from inpatient treatment is especially vulnerable.
- Outcome of intensive treatment for AN may improve if weight loss is prevented immediately following discharge.
- Rates of remission for AN and BN increase with longer follow-up.
- Clinicians play an important role in preventing relapse following treatment.
B. Primary care

Primary care settings are appropriate places for intervention in EDs, particularly in the early stages when individuals require screening and assessment. There is wide agreement that the earlier intervention begins, the better an individual’s prognosis. As such, it is desirable to equip primary care providers with the tools to recognize and initiate treatment of EDs within their practice.

Evidence base

The strongest evidence for a discussion of ED intervention in primary care derives from a handful of relatively small but strong RCTs (Sanchez-Ortiz et al., 2010; Ljotsson et al., 2007; Schmidt et al., 2007; Schmidt et al., 2008; Banasiak et al., 2005); several systematic reviews (Hay et al., 2009; Perkins et al., 2006; Berkman et al., 2006; Berkman et al., 2007); high-quality literature reviews (Grilo, 2010; Keel & Brown, 2010; Stice et al., 2010; Wildes & Marcus, 2010; Wilson, 2005); and guidelines-related articles, one of which updates the APA practice guidelines (Rome et al., 2003) and another by the Canadian Paediatric Society that provides guidelines for intervention with children and adolescents in primary care (Findlay et al., 2010).

In addition, the research identified a larger body of literature that reflects less rigorous but nonetheless informative and significant studies, including narrative literature reviews (Currin & Schmidt, 2005; Engel et al., 2009); an uncontrolled randomized experiment (Currin et al., 2007); demographic analysis (Gadalla & Piran, 2009); community-based surveys and examinations (Mond et al., 2009; DeSocio et al., 2007; Arcelus et al., 2008; Currin et al., 2009; Linville, 2010; Johnston et al., 2007; Fernandez-Aranda et al., 2009; Pretorius et al., 2009; Thompson-Brenner, 2010; Linville, 2010; Kisely et al., 2007); and outcomes analysis and evaluations (Treat et al., 2008; Fichter et al., 2008; Endacott et al., 2006; Mond et al., 2010; Bara-Carril, 2004; Helverskov et al., 2010; Debate et al., 2009).

Finally, expert commentary and discussions (Clinton, 2010; Brewerton, 2009; Schumann, 2009; Gale & Vostanis, 2003; Striegel-Moore, 2005) as well as descriptions of existing primary care initiatives (Rockman et al., 2004; Judd et al., 2004; Carter & Millar, 2004; UK, 2006) provide supporting and/or supplementary data.

Screening and early intervention

Early intervention in EDs is linked closely with selective prevention. As Currin & Schmidt (2005) put it, “the boundary between prevention in high risk groups and early intervention in prodromal cases in fluid” (p. 612). While preventative interventions may take place in public
institutions such as schools, recreation centres or youth groups, diagnostic screening and early intervention are more appropriately located in primary care facilities such as family medical or dental practices and supportive community programs.

There are multiple reasons to pursue early intervention in eating disorders. Both full-syndrome and subclinical EDs can cause significant damage to quality of life for sufferers and caregivers (Engel et al., 2009; Mond et al., 2009). They can also trigger serious medical complications, which are all the more dangerous for young people who are most at-risk of disorders such as AN and BN. Food restriction, compulsive exercise, binging and purging can interfere with normal growth and development, and the longer an ED goes untreated, the more likely that its effects will reduce the possibility of full recovery (Currin & Schmidt, 2005; DeSocio et al., 2007).

As such, the literature indicates that intervention is most effective when it takes place as early in the course of illness as possible—as early as the prodromal stage, where an individual may be asymptomatic yet also screen positively for risk factors (Keel & Brown, 2010; Stice et al., 2010; Currin & Schmidt, 2005; Rome et al., 2003; Arceles et al., 2008; Treat et al., 2008; Fichter et al., 2008). In an effort to increase the prevalence of early intervention through increasing MHL, Scottish health organizations encourage the use of “signposts” to provide information to individuals, their families, and support people about resources available in the community, and emphasize the importance of drawing public attention to this information and making it readily available, in both print and Internet-based versions (Carter & Millar, 2004, p. 113). As with prevention, improving MHL may allow individuals and their caregivers greater opportunity to recognize an ED early in its course, and understand how and when to seek help.

**Opportunities for early intervention and primary care management**

Community-based studies suggest that primary care providers (PCPs) are well-positioned to identify EDs in their practice and provide first-line support (Striegel-Moore, 2005; Currin et al., 2009; Linville, 2010; Endacott et al., 2006). Although it may be preferable for people with EDs to engage specialized services, a PCP has a clear role to play in delivering early services, and in assisting individuals and families with finding specialized treatment as required (Rome et al., 2003). Many individuals with EDs can be managed in primary care, with important implications.
in rural and underserved areas where primary care is the most likely setting in which individuals will interact with any health care providers.

There are often numerous opportunities for recognition and intervention in primary care. People with EDs tend to make greater use of health services than people without, even though they often seek treatment for comorbid problems rather than their EDs per se; do not recognize their health concerns as indications of an ED; or attempt to conceal the possibility of an ED from their health professional (Johnston et al., 2007; Gadalla & Piran, 2009; Harrop & Marlatt, 2010; Mond et al., 2010; UK, 2006). Their more frequent presence in primary care means that they are likely to be seen by a health professional at some point relatively early in their disorder, which “presents an opportunity for screening and detection in primary care that has yet to be fully realized” (Striegel-Moore, 2005, p. S33).

Emphasizing the role of PCPs in ED intervention is in keeping with a stepped continuum of care model, where initial screening and assessment with a family doctor or other primary practitioner may be the first-line treatment, followed by referrals to specialists as required (Judd et al., 2004). It may be most practical to designate specific PCPs in a given area as having “special responsibility” for EDs in the community, as is the practice in Scotland, and to encourage those individuals to maintain strong contact with secondary and tertiary services (Carter & Millar, 2004, p. 114).

**Children and adolescents**

Expert clinicians and researchers agree that it is crucial to diagnose children and adolescents early and appropriately in order to minimize the long term developmental damage that can result from malnutrition during this stage of life. In a focus group with paediatricians, however, DeSocio et al. (2007) found several common themes limiting appropriate diagnosis:

- Failure to take seriously known risk factors for developing an ED. For example, although a young person has a parent or sibling with an ED, she does not show clear signs of one herself so her health care provider does not raise the issue.
- Appointments with PCPs are too short to enable effective screening.
- The current focus on reducing the prevalence of childhood obesity is complicating early diagnosis of EDs, as the tendency in primary care is to praise weight loss and exercise.
- Adolescents may conceal the signs and symptoms of an ED.
- PCPs may be reluctant to suggest the potential for a problem, and would rather wait for clear proof that one exists.
While many of these concerns are understandable, the evidence suggests that intervention with children and adolescents cannot take place too early. It is preferable for detection to occur before the presence of such alarming symptoms as bradycardia or emaciation. According to DeSocio et al. (2007), PCPs require effective tools in order to screen and diagnose appropriately, and parents would be well-served by education around ED risk factors and development.

Specialized treatments are best delivered by trained and specialized practitioners; however, PCPs can play a role in their introduction. The Canadian Paediatric Society (CPS) advocates educating PCPs in the practice of FBT so that they can introduce the therapy to families of children and adolescents diagnosed with AN (Findlay et al., 2010; see Appendix C). This is particularly important when families do not live close to a specialized treatment service, or face long waiting lists for treatment, and thus rely on their PCP for initial intervention. The CPS emphasizes the degree to which outpatient medical visits to the PCP can help to build a strong therapeutic relationship, assist the family in establishing FBT, and monitor the young person’s condition. The organization also suggests that physicians can support families by writing letters to employers should parents require a leave of absence in order to carry out FBT.

**BN: self-help and guided self-help**

A rigorous systematic review demonstrates that self-help and guided self-help (GSH) have shown significant promise as first steps in treating EDs (Perkins et al., 2006). As Ljotsson et al. (2007) put it, “Generally, delivering self-help to all patients could…be the first intervention in stepped care…” (p. 650). In particular, experimental evidence indicates that there are a variety of GSH interventions available for PCPs to initiate with adults and adolescents diagnosed with BN or EDNOS (Schmidt et al., 2007; Banasiak et al., 2005).

CBT appears particularly amenable to dissemination via self-help or GSH, and a variety of research studies suggest that CBT-GSH is a clinically- and cost-effective approach to treating BN and EDNOS (Schmidt et al., 2008; Bara-Carril et al., 2004; Ljotsson et al., 2007; Fernandez-Aranda et al., 2009; Pretorius et al., 2009; Banasiak et al., 2005; Hay et al., 2009). For example, the results of a rigorous RCT conducted in a clinical setting indicate that beginning treatment of BN with a computerized self-help intervention may lower the cost of treatment by reducing the number of face-to-face therapy sessions required later on (Schmidt et al., 2008).
Sanchez-Ortiz et al. (2010) found support in a recent RCT for beginning treatment for BN with iCBT, an Internet-based version of CBT-GSH. Half of the sample (total of 76 participants) worked through an eight-session, manualized intervention, with minimal e-mail support from a therapist. The individuals “who had immediate iCBT” were better off than those who did not, highlighting “the benefit of iCBT in providing immediate access to effective treatment” requiring minimal professional support (pp. 8-9). Although clinical guidance improved the outcomes of the intervention, something similar could also be disseminated without specialized support. Indeed, in a sample of 109 participants, Banasiak et al. (2005) found that CBT-GSH guided by a family physician in a primary care setting compared favourably with specialist interventions.

**EDNOS**

EDNOS is the ED seen most commonly in clinical populations, and the most common diagnosis for individuals seeking treatment (Grilo, 2010; Helverskov et al., 2010; Clinton, 2010; Berkman et al., 2006; Berkman et al., 2007; Brewerton, 2009; Thompson-Brenner, 2010; Rome et al., 2003; Wildes & Marcus, 2010; Wilson, 2005; Schumann, 2009). Despite its prevalence, however, it may be difficult to diagnose in primary care because PCPs and sufferers often do not recognize it as an ED, despite its place in the DSM-IV, or else view it incorrectly as a less serious version of AN or BN. In their update to the APA practice guidelines, Rome et al. (2003) caution against this stance, with important implications for PCPs:

> The diagnosis of ED-NOS should never be considered a low-grade disorder or undeserving of aggressive treatment. Rather, disordered eating and ED-NOS represent an opportunity to intervene in a potentially life-threatening pathologic process at an early stage that may be more amenable to treatment. Failure to meet the strict criteria for AN or BN should never deter the clinician from offering early and comprehensive intervention. This is especially true in younger patients in whom earlier intervention is associated with a better long-term prognosis (pp. E99-100).

Indeed, according to a literature review by Wildes & Marcus (2010), “clinical research has found few differences between patients with EDNOS and patients with DSM-defined EDs on measures of clinical severity, including course of illness,” and “the management of EDNOS generally is identical to the management of threshold-level EDs” (p. 59). In his expert literature review and commentary, Wilson (2005) advocates a transdiagnostic approach outlined by Fairburn, in which EDNOS is treated similarly to AN or BN, depending on the particular variation and presentation.

Overall, the evidence suggests that it would be worthwhile to open admission to specialized programs to individuals with EDNOS, and avoid relying too heavily on restrictive diagnostic criteria (i.e. a maximum BMI or a set minimum number of binges or purges per week). In the meantime, because people with EDNOS may not meet criteria for admission to specialized...
programs designed specifically for AN and/or BN, it is all the more important to support PCPs in diagnosing and treating the illness in a non-specialist setting.

**Collaborative and integrative primary care**

It is often difficult for PCPs to detect EDs in their patients, and research in both the United Kingdom and United States suggests that some actively avoid screening for EDs because they are difficult to treat and there are too few accessible treatment options (Currin & Schmidt, 2005; Currin et al., 2007; Currin et al., 2009; Linville, 2010). Developing a more collaborative system of care may provide the support to PCPs to enable them to offer more effective interventions.

Evidence from community-based research (Currin et al., 2009) and expert commentary (Clinton, 2010) suggests that PCPs may be better equipped to realize their critical role in diagnosis and early intervention if they are aware of and understand existing practice guidelines and standards; diagnostic criteria; and diagnostic and follow-up protocols. According to a description of primary care for EDs in Scotland, government bodies responsible for developing and managing health systems “should help create guidelines on assessment and management in primary care” (Carter & Millar, 2004, p. 114). It seems clear that family doctors, nurse practitioners, oral health care providers and others involved in primary care settings require adequate and effective education around EDs in order to maximize the benefit of primary care in the service continuum. See Appendix D for examples of effective screening tools validated for use with adults and young people in a primary care setting.
Collaborative mental health care: examples from the UK, Canada and Australia

Evidence generated from a survey of 101 PCPs in Nova Scotia suggests that PCPs are more confident and successful in treating mental health issues when they have access to shared or collaborative mental health care (Kisely et al., 2007).

It may be useful to follow the UK’s lead and develop a role like primary mental health workers (PMHW), who occupy the “interface” between primary and secondary care, helping to offer intervention earlier by working with PCPs to identify ill or at-risk individuals in the community and match them with appropriate services. PMHWs are senior professionals with mental health backgrounds who are capable of working with individuals who may have complex disorders. A PMHW may work independently or as part of a team (Gale & Vostanis, 2003). Note that the UK has developed PMHWs to work in Child and Adolescent Mental Health services; however, it seems that this role may be beneficial for any age group.

Formal organizations can also play an important supportive role for PCPs. In Canada, for instance, the Ontario College of Family Physicians (OCFP) has developed the Collaborative Mental Health Network (CMHCN) to enable mentoring between family doctors, psychotherapists and psychiatrists (Rockman et al., 2004). Evaluation of the first three years of the program indicates that it has made a positive difference to primary delivery of mental health care, which would include EDs, and the group maintains a website that includes useful information and tools for family physicians.

Since 2001 in Victoria, Australia, the Rural Integrated Psychiatry Programme (RIP), which includes an Eating Disorders Service (EDS), has provided a stepped collaborative care model to complement the Primary Mental Health and Early Intervention Team (PMHEI). Individuals access the EDS through the PMHEI: those with mild-moderate disorders stay in primary care, and those whose illnesses are severe or complex move on to PMHEI. The RIPP program as a whole addresses education and training for PCPs, and negotiates collaboration between primary and specialist care. By integrating the whole system, the RIP has developed “a system-wide shared language and approach for the treatment of patients suffering from common mental health disorders” (Judd et al., 2004, p. 44). The training program for general practitioners involves a series of basic and specialist modules delivered through workshops of varying lengths. One noteworthy aspect of the system is its emphasis that general practitioners are not being taught or asked to approximate mental health professionals; rather, they are widening their existing skill base in order to make clinically appropriate interventions.
School and community-based outreach and early intervention

Community-based educators, health care providers, and support people (such as social workers or community service workers and volunteers) “will often be the first point of contact for someone with an eating disorder” (Carter & Millar, 2004, p. 113). As such, it would be beneficial for these individuals to be prepared to respond appropriately, including providing information that may direct individuals to services in the community, perhaps through the use of a region-wide directory of services.

Advocacy groups in the community have a similarly important role to play. They, too, can function as a clearinghouse of information about EDs and local treatment resources. They may also provide education and limited intervention, such as face-to-face or online support groups.

Formal outreach teams can offer a variety of services, from early intervention to long term support and care.

Primary Care - Research Conclusions at a Glance:

- Intervention is recommended as early in the course of illness as possible, ideally in the prodromal stage.
- Primary care providers may identify EDs in their practice and provide first line support; they need better training and support to enable appropriate diagnosis, treatment and follow up.
- People suffering from EDs commonly present with comorbidities, which may be identified before the ED.
- EDNOS is the most commonly seen ED in clinical populations. It needs to be taken more seriously, and managed identically to full-syndrome EDs.
- CBT-GSH, with or without Internet support, is a clinically- and cost-effective first step for treating BED and BN (adult and adolescent), and may be delivered in primary care.

C.Secondary care

The secondary care tier is diverse, encompassing treatments of varying intensity, delivered in multiple different environments and formats. Most individuals with EDs receive treatment in specialized outpatient and/or community-based settings. A significant minority, however,
require more intensive intervention via residential, day hospital and/or secondary inpatient hospital admission.

**Evidence base**

The evidence base for service models in secondary care focuses mostly (although not exclusively) on AN, and seems concerned primarily with comparisons between inpatient and outpatient care, with significant attention placed on day hospitalization and a small number of assessments of residential approaches.

The research identified only three RCTs relevant to service delivery in secondary care. Two rigorous studies (Gowers et al., 2010; Byford et al., 2007) derive from the Treatment Outcome for Child and adolescent Anorexia Nervosa (TOuCAN) trial, a multi-centre RCT carried out with a large sample (n=167) of adolescents with AN recruited from community Child and Mental Health Services (CAMHS) in northwest England. The aim of the TOcCAN trial is to examine clinical- and cost-effectiveness of different service models for adolescent AN. The remaining RCT is Kong’s (2005) study comparing the efficacy of a day hospitalization program based on the approach developed at the Toronto General Hospital. Kong’s study is well-designed, but has several limitations, the most significant being a small sample size (n=43).

Additional strong evidence is found in a series of systematic evidence reviews (Fairburn, 2005; Thornicroft & Tansella; Meads et al., 2001; Zipfel et al., 2002); comprehensive literature reviews (Wilson et al., 2007; Gowers & Bryant-Waugh, 2004; Keel & McCormick, 2010; McHugh et al., 2009; Bettman & Jasperson, 2009; Olmstead et al., 2010; Wilson et al., 2000); and a large sequential cohort study (Olmstead et al., 2003).

Less rigorous studies include uncontrolled clinical trials, both of which yield only preliminary data (Goldstein et al., 2010; Zeeck et al., 2004); surveys of clinicians (Simmons et al., 2008) and treatment programs (Frisch et al., 2006); examinations of the design and structure of existing treatment programs (Stewart & Williamson, 2004a; Touyz et al., 2003); and analyses of post-treatment outcomes data (Schaffner & Buchanan, 2008; Steinhausen & Weber, 2009; Steinhausen et al., 2000; Bean et al., 2004; Bean & Weltzin, 2001; Gerlinghoff et al., 1998; Lammers et al., 2007; Leichtman et al., 2001; Ben-Porath et al., 2010; Fittig et al., 2008; Willinge et al., 2010; Williamson et al., 2001).

Finally, expert clinicians and researchers provide detailed discussions of key issues in choosing and running outpatient, residential day hospital, and inpatient models of care (Palmer, 2006; Clinton, 2010; Thornton et al., 2002), and the literature also includes several descriptions of
programs and approaches to service delivery (Darwish et al., 2006; Jaffa & Percival, 2004; Painter et al., 2010; Levitt & Sansone, 2003).

**Specialized outpatient and community-based care**

Individuals whose EDs cannot be managed in primary care require specialized services available within their communities on an outpatient basis in the secondary care tier. A variety of researchers and clinicians agree that outpatient care should be the first-line specialized treatment for all EDs, offered to individuals who may be new to treatment or stepping down from more intense levels of care (Fairburn, 2005; Palmer, 2006, Wilson et al., 2007). Outpatient treatment can be delivered in discrete units (for example, an individual might see a psychotherapist once a week), or in the multidisciplinary collaboration that characterizes an intensive outpatient program.

For most individuals with EDs, evidence-based outpatient services, as part of a comprehensive continuum of care, are cost-effective and have clear clinical benefits. A central reason why outpatient services are recommended over inpatient is that engaging outpatient treatment enables individuals to maintain some degree of independence and connection with regular life, and allows them to practice new skills in a real-world setting, thus generalizing and solidifying treatment gains (Schaffner & Buchanan, 2008; Gowers et al., 2010; Byford et al., 2007; Gowers & Bryant-Waugh, 2004).

Outpatient services are the primary service model for BN. Whereas a significant minority of individuals suffering from AN will require hospitalization, there is little support for inpatient admissions for BN, and in fact, “All of the current evidence-based therapies for BN are designed to be delivered in an outpatient setting” (Gowers & Bryant-Waugh, 2004, p. 74).

Findings from the TOuCAN trial in the UK suggest that, at least for adolescent AN, specialized outpatient treatment is the most cost-effective model. Generalist treatments typically require specialist follow-up, obliterating the short-term cost savings, and inpatient admissions are particularly expensive, at multiple times the daily cost of interventions that take place in the community, and in many cases show no clear advantage (Gowers et al., 2010; see also Byford et al., 2007).
Psychotherapy is the core outpatient intervention, and evidence supports offering it as early as possible. A variety of research studies have shown that psychotherapy is superior to medical or behavioural interventions alone, though it is not always clear precisely what type of psychotherapy (i.e. CBT, DBT, IPT, psychodynamic, etc.) is best (Steinhausen & Weber, 2009; Keel & McCormick, 2010).

Outpatient care is typically eclectic, with practitioners integrating a variety of modalities (Steinhausen et al., 2000; Clinton, 2010; McHugh et al., 2009; Simmons et al., 2008; Wilson et al., 2000). Although the evidence base is largely inconclusive when it comes to identifying effective treatments for EDs (especially adult AN), after assessing 77 women pre- and post-treatment, Schaffner and Buchanan (2008) conclude, “A skilful integration of evidence-based treatments, clinical experience, and interventions based on individual needs may be the most effective approach” (p. 379).

Specialized outpatient treatment may include services delivered by private practitioners (therapists, nutritionists, psychiatrists and others), hospitals or clinics with programs focused on EDs, and community teams providing general mental health intervention or specific assistance for people with EDs.

A strong multidisciplinary team will include but is not limited to the following core roles, filled by professionals with specialization in treating EDs, and with developmentally-appropriate designations (i.e., paediatric physician for treating children, etc.): physician, psychiatrist, psychologist, family therapist, and dietitian.

**Community mental health teams and local service provision**

Community mental health teams can serve high-needs populations of all ages, including individuals with EDs who might otherwise require hospitalization. There are multiple models for community mental health intervention. A particularly strong approach, with broad support in the literature, appears to be person- or family-centred, depending on the age and circumstance of the individual with the ED. One case study suggests that community teams are well-placed to consider an individual’s broad context, taking into account environmental, psychological, and social barriers. The team may thus function holistically, and “relate to the person…rather than to the…patient” (Darwish et al., 2006, p. 601).

Community teams have a number of advantages, including the ability to assess, observe and assist individuals within their everyday environments, increasing the odds that therapeutic changes will be appropriate and sustainable. They also have the potential for flexibility and responsiveness as they may see individuals and families in spaces where they feel most at ease.
(Darwish et al., 2006). The teams are designed to assist individuals and/or families to make practical, sustainable changes gradually, in the context of their normal lives.

Ideally, such an intervention is strengths-based, culturally competent, and responds to the family’s changing needs over time (Darwish et al., 2006). Community teams may offer individual, group and family therapy; be part of a multidisciplinary approach to treatment; and play a supportive role, accompanying people to appointments and providing other types of services that assist with building life skills and improving quality of life.

**Example: The Phoenix Centre Outreach Service (UK)**

The Phoenix Centre in southern England started its outreach service in 2001 in order to improve continuity of care. Run by senior nursing staff, it provides clinical services, consultation, and education in individuals’ homes and local clinics. Outreach workers may also provide support to individuals in non-specialist treatment settings such as secondary care hospitals, increasing capacity in the secondary tier. The service has succeeded in reducing the number of tertiary inpatient admissions for adolescent AN, providing community support at a level that can supplant the need for a specialized hospital bed (Jaffa & Percival, 2004).

**Example: The Anorexia Nervosa Intensive Treatment Team (Scotland)**

The Anorexia Nervosa Intensive Treatment Team (ANITT) in Lothian and Fife, Scotland, serves low-weight individuals (BMI less than 15) with complex eating disorders whose lives are seriously compromised by their illness. Such individuals may have found standard OP therapy inadequate or have been recently discharged from hospital, or ANITT may assist an individual in avoiding or minimizing the length of an inpatient admission. Treatment with the service usually lasts one year. The ANITT team functions similarly to the multidisciplinary team in a hospital, but attends to individuals in their homes at least twice a week for one to two hours each time. The website explains, “It is hoped that ANITT’s treatment and support in your home rather than in a hospital setting will mean that recovery will be more sustainable for you in the long term.” Home-based treatment includes medical, psychological and nutritional intervention, as well as mealtime support.
A Continuum of Care for Eating Disorders Service Provision

Residential treatment

Residential care may be appropriate for individuals whose lives are significantly disrupted by an ED, to arrest it before it leads to medical instability or to allow individuals time to solidify gains made in hospital before returning to outpatient therapy. It is intended to serve people whose EDs have progressed to the point where they can no longer function in everyday life; for whom inpatient admission is not indicated; who are physiologically stable; and who may benefit from an intensive and highly structured therapeutic environment (APA, 2006).

Residential facilities are not hospitals; rather, they are places where individuals experiencing serious psychological distress as a result of their EDs will be able to get treatment from expert clinicians and practitioners within a community of peers. They may use a combination of psychotherapies as described above (i.e. variants of CBT, IPT, DBT, FBT) in addition to complementary modalities, all delivered in both individual and group formats (Frisch et al., 2006).

Residential programs may be more cost-effective than inpatient admissions, and they enable efficient use of the full continuum of care. Situating people seeking intensive psychological care in a less restrictive environment may allow scarce inpatient resources to be directed toward individuals who are medically compromised and truly in need of an inpatient admission while providing sufficient support for individuals who are medically stable but impaired in other significant ways. It may also prevent the need for a more costly inpatient stay by providing intensive intervention earlier in the course of illness, thus helping an individual avoid the onset of medical instability (Bean et al., 2004). Similarly, residential programs may also complement community-based services by providing more intensive care to people who require it, and allowing local providers to focus community resources on the people who are most likely to benefit from the less intensive care that they can offer.

Specialized OP & Community Care - Research conclusions at a glance:

- Despite the recommendations in published guidelines, treatments delivered in clinical settings are diverse and eclectic, suggesting a gap between research and practice.
- Specialized outpatient treatment is the most cost-effective model for treating EDs, and the treatment of choice for BN.
Residential treatment can provide a level of coordinated care that is often otherwise unavailable, particularly in low-resource or underserved areas. Ideally, residential services are available in local communities such that individuals experience the least possible disruption during their admission, and in order to maintain continuity of care and facilitate a smoother transition back to community-based treatment following the residential stay.

Because residential programs are most common in the United States where they generally operate as private, for-profit businesses, data on their efficacy is hard to come by. However, the small number of published outcome studies (Bean & Weltzin, 2001; Bean et al., 2004; Bettman & Jasperson, 2009; Leichtman et al., 2001; see also a 10-year outcome study by Monte Nido, a residential service based in southern California) and program evaluations (Frisch et al., 2006) that are available, along with relevant interventions in the broader literature on ED treatment (Thornicroft & Tansella, 2004; Palmer, 2006), indicate that residential treatment occupies a unique and valuable niche in the continuum of care, and leads to statistically significant changes in individuals who complete the treatment programs.

---

**Example: Monte Nido Treatment Centre (California)**

Monte Nido, a private residential facility based in California and accredited by the Joint Commission, provides treatment that follows a bio-psycho-social-spiritual model, assisting individuals with recovery from AN, BN, EDNOS and exercise addiction. Individualized programming focuses on achieving physiological and psychological balance, and offers opportunities to “ten[d] the soul” through spiritual or mindfulness practice. The facility delivers a combination of evidence-based and complementary modalities, including CBT, DBT, individual and group psychotherapy, family therapy, art and recreational activities, and therapeutic exercise including yoga. Some locations offer day programs, transitional living programs to assist with the shift from residential treatment back to regular life, and outpatient therapy.

The facility makes its [10-year outcome study](#) publicly available via its website. It is notable, given the high drop-out rates typical of follow-up studies for ED treatment, that 75 per cent of alumni participated in Monte Nido’s follow-up process. The study, supervised by Dr. Timothy Brewer, an independent practitioner and recognized expert in eating disorders treatment, suggests that treatment delivered at Monte Nido has been effective for these clients.
Residential Treatment - Research conclusions at a glance:

- Although there is little outcome data proving its efficacy, residential treatment occupies a valuable and unique niche in the continuum of care.
- Residential treatment may offer a cost-effective alternative to inpatient treatment, with potential clinical and therapeutic advantages.

### Day hospitalization programs (DHP)

Day hospitalization programs (DHP) may be located in both the secondary and tertiary levels of care, where they fulfill the same broad purpose and with the same rationale, albeit for a slightly different target population. Nonetheless, researchers and clinicians continue to debate the clinical role of day hospitalization within the continuum of care. As Fairburn (2005) has put it, “It is not clear whether day patient treatment is best viewed as a less expensive alternative to inpatient treatment, as an intensive form of outpatient treatment, or as a distinct modality with particular strengths and weaknesses” (Fairburn, 2005, p. S27).

The nebulous position of day hospitalization notwithstanding, there is a broad consensus based on experimental evidence (Kong, 2005; Zipfel et al., 2002; Ben-Porath et al., 2010; Gerlinghoff et al., 1998; Goldstein et al., 2010; Schaffner & Buchanan, 2008; Willinge et al., 2010; Zeeck et al., 2004; Olmstead et al., 2010), clinical observation (Fittig et al., 2008; Lammers et al., 2007; Stewart & Williamson, 2004a; Touyz et al., 2003), and expert, evidence-based guidance (Levitt & Sansone, 2003; Thornton et al., 2002; APA, 2006; NICE, 2004) that it provides a valuable service option for people suffering from moderate to severe EDs.

DHPs offer multidisciplinary treatment (including psychiatric, medical, psychological, family-based, nutritional and experiential modalities) in group, family and individual formats. Thornton et al. (2002) draw on significant experience with developing and implementing DHPs in Australia to conclude that effective programs “focus on containing the eating and weight-losing behaviour” (p. 2). Researchers who have studied the outcomes of DHPs across the jurisdictions—including those in Australia, Canada, Europe and the United States—suggest that they fulfill such goals by following a “cognitive behavioural orientation with an emphasis on behaviour change, food intake, and meal supervision” (Ben-Porath et al., 2010, p. 116; see also Fittig et al., 2008; Gerlinghoff et al., 1998).

DHPs typically run for four or more hours per day, on three or more days per week. Olmstead et al. (2003) and the APA guidelines (2006) suggest that DHPs are probably most effective when...
run at least five days per week, for eight hours each day. One hospital in Australia offered a continuum of care within its day program structure, providing programs of varying intensity five, three and two days, respectively, each week, including a track designed specifically for people suffering from severe and enduring EDs (Thornton et al., 2002; Touyz et al., 2003).

Preliminary results of a small clinical trial suggest that DHPs are equally effective for adult and adolescent AN (Goldstein et al., 2010), and a second pilot study suggests that they are an ideal service model for treating severe BN (Zeeck et al., 2004). There are clear contraindications, however, as depicted in the following chart:

<table>
<thead>
<tr>
<th>General contraindications for day treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute medical risks (i.e., severe emaciation, cardiovascular, or gastrointestinal complications)</td>
</tr>
<tr>
<td>Acute substance dependence</td>
</tr>
<tr>
<td>Suicidal or parasuicidal behaviors</td>
</tr>
<tr>
<td>Psychiatric crisis (psychosis, hallucinations, delusions)</td>
</tr>
<tr>
<td>Unsafe home environment (i.e., homelessness, physical or sexual abuse)</td>
</tr>
<tr>
<td>Repeated failure of day hospital treatment</td>
</tr>
<tr>
<td>Body mass index less than 16</td>
</tr>
</tbody>
</table>

When provided to the right person at the right time, evidence suggests that DHPs may be more cost-effective than inpatient admissions for EDs (Williamson et al., 2001; Zeeck et al., 2004; Kong, 2005; Zipfel et al., 2002; Ben-Porath et al., 2010; Schaffner & Buchanan, 2008; Stewart & Williamson, 2004a). For example, a 2002 study indicates that a week in the DHP at Toronto General Hospital cost $804, compared with a $3722 for the same period of time spent in inpatient, without an inherent clinical benefit from the more expensive model of care (Zipfel et al., 2002, p. 107).

Moreover, researchers suggest that day programs also have a number of clinical and therapeutic advantages over inpatient care (see Figure 2-2 below). By remaining connected to life outside the hospital, individuals engaging this treatment model maintain greater autonomy, can sometimes continue to work and/or go to school, are able to begin practicing and applying their new skills immediately in a real-world context, and stay connected to community and family supports (Schaffner et al., 2008; Zipfel et al., 2002; Zeeck et al., 2004).

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less dependence and regression</td>
<td>More exhausting, less caring</td>
</tr>
<tr>
<td>Promotes sense of own responsibility</td>
<td>Intensive group processes</td>
</tr>
</tbody>
</table>

Figure 2-1: (Source: Zipfel et al., 2004, p. 108.)

Figure 2-2: Advantages and limitations of a day clinic compared with inpatient settings. (Source: Zeeck et al., 2004, p. 81.)
### Advantages | Limitations
--- | ---
Daily practice situation at home plus intensive treatment | Less possibilities for a retreat
Regulation of distance and closeness easier | Less ‘containment’ and protection
Transition at discharge becomes easier | Sufficient motivation is necessary
Family continuously involved | Daily journey to day clinic (should not be more than 60 min. one way)
Social contacts not interrupted | More difficulty to break through vicious cycles of bingeing and purging
Less stigmatization | More burden for the family

### DHPs - Research conclusions at a glance:

- Day or partial hospitalization may be more cost-effective than inpatient admission, and has a number of clinical/therapeutic advantages.
- Day or partial hospital treatment can be more effective than traditional outpatient treatment.
- Day or partial hospitalization is a valuable option in the service continuum.

### Secondary inpatient hospitalization

At times, individuals with EDs who are otherwise engaging outpatient or day hospital treatment may require admission to non-specialist hospital units. They may engage services in emergency and acute care (Meads et al., 2001), or they may need longer admissions to a medical or psychiatric unit.

**Non-specialist admissions**

Regional hospitals with or without specialized ED services may admit people with EDs for medical and/or psychiatric treatment and monitoring. This poses a challenge for hospitals that are not accustomed to treating EDs, and may be unaware of evidence-based protocols and recommendations. This can be a particular concern in psychiatric units, which may “overlook medical issues or place ED patients low on the list of priorities” compared with patients “who have greater behavioural disturbance”; and may be unfamiliar with “the potential for adverse effects of excessively punitive or coercive approaches” (ANZAED, 2007).
Non-specialist hospitals could benefit from tools and other formal protocols developed in cooperation with tertiary centres that might assist them in providing the most appropriate care for people with EDs, even when they are relatively unaccustomed to treating these illnesses.

<table>
<thead>
<tr>
<th>Example: Eating Disorders Outreach Service inpatient toolkit (Australia)</th>
</tr>
</thead>
</table>
| The **Eating Disorders Outreach Service (EDOS)** in Queensland, Australia, provides a model of how a coordinated body can improve services for individuals who may require inpatient admission but lack access to a specialized unit. The EDOS has developed an adult inpatient management toolkit based on protocols at the Royal Brisbane and Women’s Hospital (RBWH). It provides a one-page check list for “admission and ongoing management,” based on recommended guidelines for managing medical and re-feeding risks. It also offers specific management tools, including weight charts, pre-set meal plans and meal completion forms, each supplemented with written guidelines. The toolkit also offers assistance in writing individual patient recovery plans, which are supported by EDOS clinician and dietician attendance at weekly team reviews and via regular 1-day in-service sessions (Painter et al., 2010, p. 51).

The toolkit has been successful, enabling admissions of individuals with severe EDs to local hospitals, thus improving access across the state to appropriate care, and reducing waiting lists for the specialist service at RBWH. The toolkit required an 18-month trial phase prior to full implementation.

**D. Tertiary care**

Ideally, in a stepped continuum of care, individuals will have access to and engage services early in their disorders, preventing the need for more intense treatment. Even under ideal circumstances, however, there will be people whose illnesses are not diagnosed until later in their course, who are not ready to accept intervention until later stages of illness, or who are not served adequately by less intensive treatment. Tertiary services, including DHPs, inpatient admissions, outpatient treatment, after-care, and community outreach components, are the right level of care for these people.
As is the case for other levels of care, the evidence base regarding tertiary service delivery is relatively small, with few rigorous experimental studies. Moreover, studies do not always distinguish between individuals engaging secondary versus tertiary hospital services, making it difficult to differentiate between levels of care in terms of purpose, target population, and efficacy.

Nonetheless, the TOuCAN trial discussed earlier (Gowers et al., 2010; Byford et al., 2007) supplies strong data on inpatient admission for adolescent AN, and Kaplan et al. (2009) provide a well-designed, multi-centre RCT (n=93) assessing the efficacy of intensive inpatient and day hospital treatments for adolescent and adult AN. Systematic reviews (Meads et al., 2001; Berkman et al., 2006; Zipfel et al., 2004) and comprehensive literature reviews (Olmstead et al., 2010; Vandereycken, 2003; Keel & Brown, 2010; Lamb, 2009; Keel & McCormick, 2010; Lock & Gowers, 2005; Gowers & Bryant-Waugh, 2004; Stice et al., 2010; Currin & Schmidt, 2005; Rome et al., 2003) offer excellent syntheses of the evidence base.

Additional useful studies include outcomes analyses (Treat et al., 2008; Fittig et al., 2008; Ben-Porath et al., 2010); a pragmatic retrospective analysis (Arcelus et al., 2008); cohort and comparative studies (Willer et al., 2005; Fichter et al., 2008); examinations of follow-up data (Waller et al., 2003; Steinhausen et al., 2008); evaluation of a program design (Touyz et al., 2003); and analysis based on qualitative interviews (Federici & Kaplan, 2008).

Expert commentary (Sharfstein, 2009; Palmer, 2006; Thornton et al., 2002) punctuates the empirical findings.

**Tertiary services are the right level of care for individuals whose illnesses are not diagnosed until later in their course, who are not ready to accept intervention until later stages of illness, or who are not served adequately by less intensive treatment.**

**Purpose of tertiary services**

Tertiary care for EDs is highly specialized and located in hospital-based ED treatment programs. Although directed toward a minority of people, tertiary programs are nonetheless “essential components of comprehensive treatment.” The decision to engage tertiary services “is generally based on clinical judgment and indicators related to medical stability, weight and severity of
symptoms, rapid decline in weight or food intake, and failure to improve with specialized outpatient care” (Olmstead et al., 2010, p. 198).

A strong tertiary program may include each a variety of service delivery models. For example, Toronto General Hospital and Germany’s Therapy Centre for Eating Disorders (discussed subsequently on pp. 60-61) seem to exemplify the possibility of developing a full continuum of care within a single integrated, specialized, tertiary-level treatment program.

It is worth noting that the research literature on outpatient services tends not to distinguish between services aimed at secondary versus tertiary patients. As a result, it is not possible to include in this report a full discussion of the specific shape of an ideal tertiary outpatient service, and the ways in which it may differ from a secondary outpatient service.

The research literature consulted does, however, distinguish between inpatient admissions in specialized eating disorder treatment programs (assumed to be tertiary-level or equivalent to tertiary-level), versus admissions to non-specialist units in secondary hospitals. These different delivery models are, therefore, reflected in this report, which treats secondary and tertiary inpatient admissions separately.

**Tertiary inpatient hospitalization**

The primary purpose of a tertiary inpatient hospitalization is for medical and psychiatric stabilization under the care of expert clinicians. In the case of AN, the primary ED needing inpatient treatment, stabilization includes beginning the process of re-nourishment, which may require careful monitoring of severely afflicted individuals at risk of re-feeding syndrome. Most inpatient programs appear to use a multidisciplinary approach equivalent to outpatient and DHP services, and engage the same evidence-based modalities discussed in the first section of this report.

There is no evidence supporting the inherent efficacy of inpatient treatment, and clinicians are increasingly urging shorter inpatient stays in recognition of paltry support for long hospital admissions (see, for example, Gowers et al., 2010). It may be that inpatient treatment is less a treatment of choice, and more a last resort when all else has failed or is inappropriate due to medical risk. For instance, according to Vandereycken (2003), the APA practice guidelines seem to situate inpatient treatment within a “rescue model,” as opposed to demonstrating “a functional and positive view of inpatient treatment, the choice of which is inspired by peculiar therapeutic possibilities” (p. 411).
Inpatient treatment is nonetheless a crucial element in the overall continuum of care (Keel & Brown, 2010; Lamb, 2009; Waller et al., 2003; Keel & McCormick, 2010; Meads et al., 2001; Olmstead et al., 2010; Vandereycken, 2003; Bowers & Anderson, 1994; Sharfstein, 2009; Gowers et al., 2010), required by 10 to 20 per cent of people suffering from EDs (Palmer, 2006, p. 10).

Inpatient admission may be most effective when linked strongly with other components within the overall continuum. The key point is that individuals are not expected to recover as a result of an inpatient admission; inpatient services are not stand-alone treatments. Rather, an inpatient admission can facilitate a long-term process of recovery for individuals who require this type of intensive medical care, as one point within a varied and rich continuum of services (Federici & Kaplan, 2008).

With this in mind, it is important to recognize that poor outcome data from inpatient programs may not reflect the insufficiency of inpatient treatment so much as the particularly intractable state of eating disorders in people who have decompensated to the point of requiring tertiary hospitalization (Lock & Gowers, 2005; Keel & McCormick, 2010). That individuals admitted to inpatient treatment tend to experience repeat hospitalization may reflect the complexity of their illness as much or more than the inadequacy of the intervention.

**The role of inpatient treatment for AN**

While inpatient treatment is not indicated for BN, it is the appropriate choice for some individuals with moderate to severe AN (NICE, 2004; APA, 2006). The decision to engage or terminate inpatient treatment, however, is guided less by empirical evidence and more by clinical judgment and opinion (Gowers & Bryant-Waugh, 2004; Vandereycken, 2003). As Berkman et al. (2006) point out in a comprehensive systematic review,

> No clinical trials for AN address the optimal approach to inpatient weight restoration that can achieve the most lasting gain… No studies address the accuracy of the recommendation for hospitalization at 75 percent IBW. No studies address the optimal conditions under which a patient should be discharged from inpatient treatment and stepped down to less structured environments (p. 147).

The course and consequences of inpatient treatment are not well understood (Gowers & Bryant-Waugh, 2004). Still, it is vital for some people with AN, not only for medical stabilization but
because “health-related quality of life studies have shown that patients with eating disorders report more functional difficulties in daily living than do healthy controls and hospitalization may provide a welcome temporary escape” (Lock & Gowers, 2005, p. 600).

A lack of empirical evidence means that it is up to individual clinicians, preferably in collaboration with individual sufferers, to decide when to admit, what goals to pursue during the admission, and when to discharge. For example, the optimum length of stay for adolescent AN is not clear from the existing evidence base, with some clinicians advocating months and others suggesting that an admission should be limited to a matter of days or weeks (Gowers et al., 2010; Willer et al., 2005; personal communication with James Lock, 27 September 2010).

Similarly, there is currently significant debate about the utility of BMI as a factor in deciding when to admit or discharge. A wide range of researchers urge admitting patients at higher BMIs on the theory that earlier intervention—before the ED can do the worst physical damage—leads to a better prognosis (Keel & Brown, 2010; Stice et al., 2010; Currin & Schmidt, 2005; Rome et al., 2003; Arcelus et al., 2008; Treat et al., 2008; Fichter et al., 2008). It may be that a higher BMI upon transition from inpatient to a lower level of care, either as a result of significant re-feeding or a higher BMI on admission, also increases the potential for a stronger recovery (Keel & McCormick, 2010; Steinhausen et al., 2008; Kaplan et al., 2009; Treat et al., 2008).

**Integrated tertiary hospital programming**

As is clear from the international environmental scan in the attached supplement, a number of hospitals across the jurisdictions provide integrated programs that offer linked outpatient, DHP, inpatient, and after-care components. The programs at Toronto General Hospital and the Therapy Centre for Eating Disorders (Munich, Germany) are two particularly well-described examples of how this works in practice.
Example: Toronto General Hospital

The program at Toronto General Hospital is one of the best described in the literature, and has an international reputation for excellence in treatment and research. According to published descriptions, individuals may engage the service in a variety of ways. Typically, following referral and assessment, adults with will either enter inpatient treatment (for about 10 weeks for AN, and perhaps two to three for other EDs), and then join the DHP, a 12-person program based primarily on group therapy. Some individuals will enter the DHP without an initial inpatient admission.

The DHP at Toronto General runs five days per week, from 10 am to 6 pm daily. Average length of stay is two to four months. The focus of the program is on controlling symptoms, normalizing eating, and, if necessary, gaining weight. A benefit of the day hospital format is that participants are able to work on a daily basis on integrating changes into their home life and environment.

Following the DHP, participants enter a transition program to maintain the changes they have made. At first they attend one group and one meal five days per week, gradually tapering down the frequency of attendance over a six-week period. In addition, there is a support group meeting one evening each week dedicated to relapse prevention.

The hospital also runs a modified ED Assertive Community Treatment (ACT) team that meets chronically ill individuals in the community or in their homes to help improve their quality of life and ensure physical wellbeing.

Although recent evidence questions the impact of the program on participants in the DHP at Toronto General (Olmstead, et al., 2010a), a variety of earlier studies have shown good outcomes for both short and long term recovery (see Zipfel et al., 2004, for a systematic review of DHPs including Toronto’s). Published studies examining the efficacy of DHPs report “an average increased weight gain of 6kg in individuals diagnosed with anorexia, significant reductions in bingeing and purging behaviours in those with bulimia and a decrease in disturbed attitudes and believes about weight and shape as well as depression. Additionally, over 50% of the sample reported abstinence from binge-purge behaviours at the end of treatment” (Ben-Porath et al., 2010, p. 115).
Example: Therapy Centre for Eating Disorders (TCE – Munich, Germany)

Like the program at Toronto General, the Therapy Centre for Eating Disorders (TCE) in Munich is also well described in the literature, and offers a variety of stages of treatment within one 10-month, four-phase service model.

The first phase, lasting four weeks, takes place on an outpatient basis and focuses on readiness and motivation. The second phase is a four-month DHP, operating from 8 am to 5 pm, seven days per week, and serving 24 patients in a closed group. The DHP is followed by four months of outpatient care, then a four-week separation phase.

The overall goal of the program is to foster skills for self-management according to a bio-psycho-social format delivered exclusively through group therapy.

Fittig et al. (2008) define it as highly effective, with 41.3 per cent of one sample classified as remitted at their 18-month follow up. Zipfel et al. (2004) reports similarly strong outcomes.

Severe and enduring illness

It is vital that the continuum includes services dedicated to the approximately 50 per cent of individuals with AN whose illnesses do not remit, a significant proportion of whom may develop a severe and enduring illness (Keel & Brown, 2010). There are numerous reasons why people with AN remain sick in spite of treatment, and “it is very important to maintain a constructive connection with this group” (Geller et al., 2001, p. 366).

In an invited article, Geller et al. (2001) recommend the following mission statement, based on the strategy of motivational interviewing, to assist clinicians with developing a productive stance when working with individuals suffering from chronic EDs: “To develop and foster a trusting, supportive relationship that promotes client self-awareness, self-acceptance, and responsibility for change” (p. 367). They describe six clinician behaviours that may assist with putting the mission statement into practice (pp. 368-72):
• Communicate beliefs and values that foster client self-acceptance: This includes providing affirmation of an individual’s sense of the purpose of her disorder and the individual’s stage of readiness for change.

• Assume nothing: Avoid making “assumptions about client feelings, motives or experiences.”

• Be curious: Taking active steps to understand an individual’s position in order to encourage deeper investigation of the reasons for the ED and its impact on an individual’s life.

• Be active: The act of building a strong therapeutic alliance is at the heart of helping an individual consider, prepare for or enact change.

• Be on the same side: “Staying on the same side means working with the client to solve an issue that the client identifies as a problem.”

• The client is responsible for change.

Individuals suffering from chronic illness require ongoing compassion and assistance with maximizing their quality of life. A PCP in conversation with specialists in the secondary care tier can often provide adequate support for such individuals, monitoring an individual’s medical status and level of risk (UK, 2006). There are, however, a small number of specialized programs for this population, which may be most appropriately placed in the tertiary level of care.

---

**Example: Centre for Eating Disorders Ursula (Netherlands)**

The Centre for Eating Disorders Ursula in the Netherlands, which takes an overall patient-centred approach to treatment, includes among its programs booster admissions for individuals with chronic illnesses. These generally last six weeks or less, and the Clinical Director describes them as “symptom holidays,” allowing severely afflicted individuals a temporary respite from some of the demands of coping with their ED (personal communication with Eric van Furth, 15 September 2010).
**Example: Sheena’s Place (Toronto, Ontario)**

Individuals suffering from chronic illness may be assisted by services such as the non-profit Sheena’s Place, located in downtown Toronto, which provides a variety of free support programs. A comprehensive evaluation conducted in 1999 suggests broad support for the service. Because it relies entirely on fundraising and donations for operating costs, Sheena’s Place is not required to demonstrate “improvement of clinical outcomes” to a public funding body, and may therefore emphasize psychosocial support and improved quality of life, particularly for severe and enduring clients. Sheena’s Place has served as a model for other programs in Ontario, as well as Hope House, based at the University of South Florida (Powers & Nguyen, 2009).

**Example: Wesley Private Hospital (Australia)**

The Wesley Private Hospital in Australia developed an innovative approach to working with individuals with severe and enduring AN. For a period of time, two senior clinicians operated a two-day per week program that focused on quality of life and developing a better understanding of the individual’s ED and motivation to change. Situated in a house located some distance away from the hospital out of which it was based, the program was unique in that it did not focus on behavioural change. Each day of service provided two one-hour and one 90-minute group therapy sessions, plus individual psychotherapy and medications as needed. Lunch was provided but the responsibility for preparing and eating was the individual’s alone; completion of meals was not necessary to maintain admission.

Participants were required to agree to attend for 6 months, renewable for a subsequent term. While the program was ultimately discontinued for financial reasons, one of its founders, Dr. Chris Thornton, describes it as excellent for both the patients and the clinicians who worked with them (personal communication, 8 October 2010; see also Thornton et al., 2002; Touyz et al., 2003; Ben-Porath et al., 2010).
E. Throughout the cycle
Whatever treatment services an individual may engage, it is vital to consider and respond to her or his readiness for change, and to provide support for caregivers in order to mitigate stress and help them avoid burnout, thus increasing the likelihood that they will be able to continue supporting their loved ones effectively.

Readiness and motivation, stages of change

Much of the literature on effective interventions in EDs acknowledges the significance of readiness and motivation to successful recovery. It may be fair to argue that readiness and motivation approaches should comprise a unifying philosophy undergirding the entire continuum (Geller, 2002).

Indeed, there is a logical relationship between readiness and motivation, and a stepped continuum of care. One of the fundamental benefits of a stepped continuum is the ability to match services to an individual’s needs, and to tailor treatment (stepping up or down) according to changes in the individual’s life. Like the stepped continuum framework for service delivery, a readiness and motivation approach, based on the transtheoretical model of stages of change (Prochaska & Di Clemente, 1982), encourages clinicians to meet individuals where they are in a change process. Treatment thus need not be linear or obviously progressive, but rather adaptive and multidirectional.
A readiness and motivation approach may be a good step toward confronting sufferers’ typically ambivalent feelings about recovery, as well as the high rates of drop-out from treatment, which range in inpatient settings from about 20 to nearly 50 per cent (Wallier et al., 2009, p. 646). Vandereycken & Vansteenkiste (2009) contend in their quasi-experimental, retrospective comparative study that drop-out is, in fact, typical with ED patients, which begs questions about how clinicians might make treatment methods more acceptable to this complex population.

While clinicians and researchers usually view drop-out as “non-compliance, resistance or treatment failure,” (Vandereycken & Vansteenkiste, 2009, p. 177), a readiness and motivation approach might enable a more useful contextualization of such behaviour, validating the reasons individuals may have for leaving treatment and seeking new strategies to encourage longer, and more widespread and meaningful buy-in. Consider this description of “the core principles” of readiness and motivational therapy (RMT):

>C]hange is a wilful choice and cannot be imposed upon patients in a lasting way and…change is likely to occur when a treatment intervention matches the stage of change of the patient. If treatment intervention does not match the stage of change of the patient then resistance will occur (Thornton et al., 2002, p. 7).

In other words, it may be unproductive to insist individuals engage treatment they are not willing to accept. Rather, time, energy and resources may be better directed toward forging therapeutic relationships based on cooperation and trust, which could set the stage for individuals with EDs to learn to trust and care for their own bodies. Indeed, Thornton et al. (2002), who were behind the development of the aforementioned service for severe and enduring AN at the Wesley Hospital in Australia, explain that a readiness and motivation approach is characterized not by judgment of an individual’s degree of compliance or success, but by a display of “empathy and respect for the patient (a common complaint from longterm patients is that previous treatments have been unempathetic and patronizing), [and] curiosity and interest in the dilemma of living with a chronic illness” in order to help individuals understand and manage their own ambivalence (p. 7).

A synthesis of the evidence suggests that it may be worthwhile to build readiness programs into the continuum in order to prepare individuals for a given stage of treatment. Such programs may be especially useful prior to residential, DHP or inpatient admissions, all of which are somewhat disruptive and require significant adjustment.

**Supporting caregivers**

Research evidence suggests weaving services that support caregivers throughout the continuum of care. EDs are tremendously difficult for families, friends and others involved in a sufferer’s
life. Those who care directly for individuals with EDs experience significant stress and disruption, and it is important to consider their needs at all stages of treatment (UK, 2006).

Assisting the individual with an ED helps caregivers indirectly, by alleviating stressors associated with the symptoms that characterize the illness. This is particularly the case for parents or partners who live with and may have primary responsibility for the individual suffering from the disorder. However, caregivers also require direct assistance; indeed, UK law mandates assessing and, where possible, addressing caregivers’ needs (Winn et al., 2004).

Recovery is a long and uneven process and caregivers require specific interventions that may help them maintain hope. Based on qualitative evidence drawn from interviews with people caring for individuals with BN, Winn et al. (2004) assert that caregivers’ needs include:

- Information
- Guidance and advice
- To talk to others about their experiences

Health professionals have an important role to play in providing caregivers with information, support, and access to services that may ease their burden. Contact with groups, individuals and families who may identify with a caregiver’s position are similarly crucial (Hight et al., 2005; McMaster et al., 2004).
3. Global systemic factors affecting the continuum of care

A. Managing the continuum

Developing and maintaining a comprehensive continuum of care requires focused management and coordination in order to enable smooth transitions between services for individuals seeking or engaging treatment, and to foster constructive dialogue and collaboration among service providers.

**Continuity of care**

It is vital to maintain continuity of care within and between services (Palmer, 2006; UK, 2006). The continuum functions most effectively when all services communicate well with each other, linking the various components and enabling service users to engage coordinated interventions in various levels of care.

**Independent liaison**

Evaluations of services in Scotland and Australia suggest the benefit of incorporating an independent liaison function to maximize efficiency and ensure timely matching of service users to the appropriate intervention (UK, 2006; Endacott, 2006). Indeed, part of New Zealand’s re-design of its ED services includes a designated ED liaison person in each district health board (similar to British Columbia’s health authorities). The liaison person’s primary function is to support staff and clinicians, facilitate communication between services, and stay involved with referrals and transitions (New Zealand, 2008).

**Transitions**

Transitions between services require especially careful management, and research supports planning them well in advance (Durbin et al., 2007). This is particularly the case when transitions require service users or providers to travel, or when they are the result of a service user’s developmental change or movement to a new age category (Arcelus et al., 2008).

For example, the Canadian Paediatric Society (1998) acknowledges the difficulties that occur when young people outgrow coverage on parents’ insurance plans or face the transition from child to adult services. It states, “Legislation should provide reimbursement for intervention by multiple disciplines for adolescents with eating disorders… Health care reforms should include provisions that address the needs of adolescents with eating disorders and ensure that they not be denied access to care because of absent or inadequate health care coverage.”
University-age students, a population viewed at high risk for EDs, may need special consideration, as they tend to shift between services, using one during the academic year and another when they are at home on holidays and breaks. These individuals would benefit if school- and home community-based services worked together to ensure consistent and continuous treatment (Treasure et al., 2005).

**Formal coordination across service areas**

It may be that formal coordinating bodies can assist with managing the continuum efficiently and effectively. In his expert commentary, Palmer (2006) recommends, a “managed clinical network or hub and spoke system where a group of local services share an in-patient facility,” and “could also share frameworks for clinical governance, training, supervision and research” (p. 11).

---

**Example: Ontario Community Outreach Program (Canada)**

The [Ontario Community Outreach Program for Eating Disorders (OCOPED)](http://www.ocoped.ca), based in the University Health Network, works with a variety of health care providers to create and share knowledge, and offer training, consultation and research evaluation across levels of care. Its mission includes the following four points:

- Identifying partnerships within the health care system
- Providing education and training experiences to partners
- Fostering the regionalization of specialized services
- Facilitating easier access to community-based services by the consumer

The OCOPED’s services include intensive training modules and workshops for community-based practitioners that address processes of preventing EDs, and assessment and treatment in outpatient services as well as day and inpatient hospitalization programs. The overall focus is on improving availability of services and access around the province, and to that end, the organization has succeeded in creating a provincial network of specialized service providers.

Participants in training programs report statistically significant increases in knowledge on a range of measures, and more than half of those surveyed during the OCOPED’s pilot stage believed that the workshops would lead to
improved care for people with EDs and increase and improve treatment resources available (McVey et al., 2005a, p. S38).

The OCOPED is responsible for compiling an inventory of all funded ED programs in Ontario, which includes detailed program descriptions and outcome data as available. The inventory reflects the OCOPED’s success in fostering regionalization, with comprehensive, multidisciplinary treatment programs providing outpatient services and varying levels of day and inpatient admission across the province.

Managing The Continuum - Research conclusions at a glance:

- Broad bodies that can coordinate service delivery across a geographical area may be helpful, and assist with maintaining good communication between levels of care.
- It is valuable for all specialized services to provide outreach to support primary care and community service providers.
- A continuum is more effective when transitions are managed carefully, particularly transitions between child/adolescent and adult services.

B. Facilitating access

Access to good ED prevention and treatment resources is typically complicated. In Canada and other systems with public health care, funded programs may not have the capacity to serve all who are in need, with long waiting times resulting. Meanwhile, private services such as community-based psychotherapists may be prohibitively expensive. In addition, individuals may live at some distance from specialized services, and travel may be impractical or too costly to undertake. Other potential barriers include a lack of local specialists; comorbidities, which are typical with BN and associated disorders; as well as culture and ethnicity.

A synthesis of the evidence cited in this report, as well as discussions with researcher/clinicians across several jurisdictions (personal communication with Howard Steiger, 20 September 2010; Eric van Furth, 15 September 2010; Chris Thornton, 8 October 2010), suggests that a solution may lie in emphasizing a hub and spoke model. Such an approach might encourage the development of regionalized services linked in some way with major centres of excellence in order to provide individuals with a variety of levels of care involving safe, high-quality
interventions close to their home communities. It is likely most important to develop accessible community-based, outpatient services, since a wide range of evidence supports cultivating this as the largest component of the continuum, and it is intended to serve the majority of individuals in need. Services may be delivered face-to-face or via telehealth.

**Lack of local specialists**

It is common for outlying or remote areas to lack specialists qualified to deliver effective treatment for EDs. Telehealth, discussed below, provides one potential solution to this problem by broadening the reach of existing specialists. It would be ideal, however, if more communities had local access to trained clinicians. In a study of service development in Scotland, Carter & Millar (2004) suggest that the health decision-making body in a given region “should identify a lead clinician and a manager to take the lead in developing a local strategy for improved” services, in cooperation with existing specialist services (p. 114).

**Insufficient understanding of EDs in boys and men**

Although EDs are more common in girls and women, their prevalence is increasing among boys and men. Studies suggest that boys and men account for approximately 10 per cent of cases of AN and BN, and as many as 25 per cent of individuals presenting with BED (Kjelsas et al., 2004, p. 14; Weltzin et al., 2005, p. 186). One survey of nearly 5000 men and women in a U.S. health management organization indicates that while most people with AN or BN are females, sub-threshold BED may be more common among men than women (Striegel-Moore et al., 2009).

Some researchers suggest that prevalence estimates for males are on the low side. They note the apparent gender-bias of the DSM-IV diagnostic criteria, which are designed to identify EDs in females and may not be sufficient for diagnosing males appropriately (Jones & Morgan, 2010; Muise et al., 2003; Eliot & Baker, 2001). Indeed, substantial numbers of boys and men likely remain undiagnosed, and their EDs are thus not reported at all (Kjelsas et al., 2004).

Problematic diagnostic criteria compound the perception among individuals with EDs, the general public, and many health care professionals that these illnesses are ‘feminine,’ and that treatments will necessarily be designed for females and thus be inappropriate for boys and men (Muise et al., 2003). In fact, although much
more rigorous study is required to arrive at any definitive conclusions, it appears from comprehensive literature reviews (Jones & Morgan, 2010; Muise et al., 2003; Eliot & Baker, 2001) and limited experimental evidence (Fernandez-Aranda et al., 2009b) that there are more similarities in the presentation and treatment of EDs in males compared with females than there are differences. For instance, in terms of treatment, both males and females have equal need for and potential to benefit from re-nourishment, psychotherapy, and treatment of comorbidities.

The same studies, however, do highlight some notable differences. There are some differences in presentation: males tend to have higher levels of comorbidity; are more likely to be homosexual or bisexual; and are more likely to be overweight or obese prior to the onset of their ED. Males tend to experience a later onset of illness, presenting with subclinical variants during adolescence, which may progress to full syndrome disorders later in life. They are also typically more concerned with muscular size and development than with thinness, per se (see also McVey et al., 2005b).

When it comes to treatment, males with BN are more likely than women to experience delays in seeking and/or receiving treatment, whereas males with AN are more likely to receive earlier intervention. Due in part to differences in the nature of their body dissatisfaction, boys and men may require different types of psychological support, particularly when it comes to body image interventions (Jones & Morgan, 2010). CBT appears as effective with males as with females, but some researchers advocate separate groups for males only (Fernandez-Aranda et al., 2009b; Weltzin et al., 2005). Although pharmacotherapeutic interventions have been proven effective for women with BN, it is much less clear whether or not they are effective for men (Jones & Morgan, 2010). Overall, however, as Weltzin et al. (2005) report, “Studies suggest that men and women have a similar response to treatment” (p. 189), with men sometimes showing a better overall prognosis.

**Comorbid disorders**

One potential limitation to access is the difficulty of finding appropriate treatment for people with comorbidities. It is extremely common for people with eating disorders to suffer from comorbid illnesses including, but not limited to substance use disorder, obsessive compulsive disorder, borderline personality disorder, depression, and anxiety. This presents a significant challenge in terms of designing a strong continuum of care and providing effective services, as EDs will not resolve if comorbid problems are left untreated; comorbidities may worsen as a result of compromised nutrition; EDs can worsen with treatment of comorbidities alone; and comorbid problems may limit access to specialized ED services (Blinder et al., 2006; Courbasson et al., 2005).

A Continuum of Care for Eating Disorders Service Provision
Depression and substance use disorder (SUD) are of particular concern. A large study (n=2436) of individuals undergoing inpatient treatment for an ED indicated that 97 per cent had comorbid diagnoses, with the vast majority suffering from depression (Blinder et al., 2006). SUD is also common, although most likely to co-occur with BN (Blinder et al., 2006). Harrop & Marlatt (2010) state, “Both clinical and community sample studies report high levels of comorbid SUDs and EDs. Comorbidity prevalence rates range from 17 to 46% depending on the type of ED and subtype” (p. 394). A study by Courbasson et al. (2005) suggests that the co-occurrence of SUD and ED is high enough to justify routing screening of individuals diagnosed with SUD for EDs. Harrop & Marlatt (2010) conclude, “Most researchers recommend early intervention and dual care for those presenting with both disorders. However, no empirical studies addressed treatment efficacy” (p. 396).

According to Gadalla and Piran (2009), based on data collected by Statistics Canada, it is crucial for assessments and treatments to account for the frequent co-occurrence of EDs with both SUD and major depression, in both women and men. Indeed, a variety of researchers suggest that integrating treatment provides clinical benefits, and also might make treatment more accessible for individuals who would otherwise have to seek help in separate delivery systems (Ducharme et al., 2006; see also Kavanagh et al., 2003). One study of publicly-funded addictions treatment programs in the United States suggests that it may be valuable for facilities that treat addictions to offer combined treatment for SUD and ED (Gordon et al., 2008).

There are promising movements toward developing effective protocols for treating EDs and a range of comorbid problems; however, more research is required, particularly for refining CBT for a combination of BN and SUD, to make definitive statements about best practice (Sysko & Hildebrandt, 2009).

**Culture and ethnicity as barriers**

Culture and ethnicity have an impact on diagnosis. Individuals from some cultural backgrounds do not recognize the clinical significance of certain ED symptoms, and the clinical parameters fail to identify symptoms specific to particular cultures (Becker, 2007). There may also be
significant stigma among some groups associated with having or seeking treatment for mental illness, while other groups may be suspicious of the mental health care system and therefore resist engaging services. Furthermore, clinicians may display “differential behaviour”—whether consciously or not—toward certain cultural groups, which may be offensive or off-putting to service users (Gordon et al., 2006, p. 319).

Culturally- or ethnically-based barriers impede diagnosis as well as treatment. U.S. data suggests, “Women from minority groups who have eating disorders are underdiagnosed and typically not treated” (Cachelin et al., 2001, p. 169; see also Gordon et al., 2006).

Given British Columbia’s multicultural population, cultural competency is fundamental to the development of all health services, including eating disorders prevention and intervention. In particular, the evidence supports designing services that may engage Aboriginal populations and remove identified barriers to care. The literature on mental health provision for Aboriginals acknowledges that mental health services are more effective when they integrate Aboriginal people and/or concepts of health and wellness into all levels of design and delivery (Kumar et al., 2008; O’Brien et al., 2007). It might make ED services more responsive and accessible if they were to include staff trained to work with Aboriginal participants and who may be Aboriginal themselves. In addition, outreach to Aboriginal communities, which could involve cooperative development of culturally appropriate and connected assessment, referral, treatment, discharge and follow-up procedures, may be a valuable addition to the continuum.

**Telehealth**

Telehealth offers an array of potential benefits for increasing access to quality eating disorders services. It could expand the capacity of regionalized ED service providers, allowing them to serve individuals both locally and in more remote areas. It could also be a conduit for training, allowing clinicians in major centres practical means of disseminating information and supervising distant trainees (Crow et al., 2009; Carter & Millar, 2004).

Telehealth offers service users increased opportunities for anonymity. A significant proportion of individuals do not seek treatment for EDs specifically and mental health concerns more generally because of stigma and shame. Allowing individuals to access specialized treatment in the privacy of their own homes, or via technology set up at a general health centre may help to break down these barriers to intervention (Paxton & Franko, 2010; Grunwald & Busse, 2003). Eric van Furth
of the Centre for Eating Disorders Ursula in the Netherlands credits the success of his organization’s website, www.Proud2bme.com, both to its ease of access, and the fact that users can remain anonymous while receiving prevention and intervention information and resources, as well as individual and group support (personal communication, 15 September 2010).

Telehealth may be especially useful for treating EDs using evidence-based modalities, which are otherwise challenging to disseminate adequately (Shafran et al., 2009). A fairly strong body of empirical research has shown that modalities such as CBT may be delivered effectively—with negligible differences in outcome compared with face-to-face methods—via telehealth or other computerized means, such as easily distributed CD-ROMs (Crow et al., 2009; Mitchell et al., 2008; Sanchez-Ortiz et al., 2010; Marone et al., 2009; Schmidt et al., 2008; Steele et al., 2008; see also Paxton & Franko, 2010). Indeed, one large meta-analysis suggests that CBT is the most effective therapeutic approach tested for Internet-based delivery (Barak et al., 2008).

Family therapy can also be delivered effectively via telehealth. One case study demonstrates success in delivering FT to a rural community. Beginning with one face-to-face assessment, and then proceeding on to exclusively telehealth meetings, the intervention facilitated recovery on both objective and subjective indicators, and was acceptable to all family members (Goldfield & Boachie, 2003).

Internet-based prevention and intervention in particular may occupy an important and legitimate position within the continuum of care (Barak et al., 2008; Ljotsson et al., 2007). The Internet can offer moderated chat rooms for use in group therapy or support; e-mail therapy, which shows promise for both AN and BN; self-management tools based on CBT for BN; online consulting; and instant messaging systems for aftercare (Paxton & Franko, 2010; Grunwald & Busse, 2003; Carrard et al., 2006). Risks can be mitigated by providing appropriate training to therapists and other practitioners who may be involved with service delivery; careful screening of service users to ensure they are not experiencing medical deterioration; and focused, ongoing attention to issues of privacy and confidentiality.
Example: Overcoming Bulimia Online

Overcoming Bulimia Online is a Web-based CBT intervention for adolescent BN. It provides online therapy, peer support message boards, and e-mail support from a clinician. Research evidence suggests that this is an effective program, as sampled participants demonstrated significant improvements across a variety of indicators from baseline to three months, which they maintained at six months post-intervention. Moreover, participants’ views of the service were positive (Pretorius et al., 2009).

Facilitating Access - Research conclusions at a glance:

- A hub and spoke model may help to facilitate access and encourage regionalized services linked to centres of excellence.
- It is important to diagnose and offer appropriate interventions to individuals with EDs and comorbidities.
- Cultural competency is fundamental to the development of all health services, including eating disorders prevention and intervention.
- Telehealth and Internet-based interventions offer an array of potential benefits for increasing access to quality eating disorders services.
Works consulted


Royal College of Psychiatrists. (2000). *Eating disorders in the UK: policies for service development and training*. Report from the Eating Disorders Special Interest Group of the


Appendix A: Criteria for admission

Source: Stewart & Williamson, 2004a, pp. 815-816

<table>
<thead>
<tr>
<th>Level of care</th>
<th>Criteria for admission</th>
</tr>
</thead>
</table>
| Inpatient                         | **Criteria for inpatient admission**  
1. Medically unstable  
2. Less than 85% IBW range  
3. Suicidal and/or homicidal  

**Criteria for step down to lower level of care**  
1. The patient may have out of control binge-purge cycles and is participating in less restricting eating and is medically stable  
2. 85-92% of IBW  
3. Not suicidal or homicidal  

**Criteria for partial hospitalization admission**  
1. May have out of control binge-purge cycles or restrictive eating but medically stable  
2. Not suicidal or homicidal  
3. Motivated for treatment  
4. Between 85 and 92% IBW  

**Criteria for step down to lower level of care**  
1. Significant decrease in binge eating and purging behaviours  
2. Not suicidal or homicidal  
3. Motivated and willing to participate in treatment  
4. Weight greater than 92% IBW  

**Criteria for intensive outpatient admission**  
1. Medically stable  
2. Not suicidal or homicidal  
3. Exhibits a significant decrease in binge-purge behaviours and/or restrictive eating  
4. Improved nutrition  
5. Actively participates in treatment process and discharge planning  
6. Continues to require added structure  
7. Exhibits self-motivation  

**Criteria for step down to lower level of care**  
1. Medically stable  
2. Not suicidal or homicidal  
3. Levels of binge-purging are not severe  
4. Nutritional status is not severe  
5. Willing to participate in the treatment planning and discharge planning process but continues to require added structure  
6. Weight greater than 92% IBW  

**Criteria for step down to lower level of care**  
1. Weekly support group  
2. Family therapy  
3. Family support group  
4. Individual outpatient treatment with a therapist and/or psychiatrist

A Continuum of Care for Eating Disorders Service Provision  96
### Appendix B: Summary of treatments

#### Summary table of treatments for AN, BN and BED, and strength of their empirical support

(Treasure et al., 2009, p. 6).

<table>
<thead>
<tr>
<th></th>
<th>AN</th>
<th>BN</th>
<th>BED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pharmacological treatment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antidepressants (acute phase)</td>
<td>Weak</td>
<td>Strong</td>
<td>Moderate</td>
</tr>
<tr>
<td>SSRIs</td>
<td>Weak*</td>
<td>Strong*</td>
<td>Moderate</td>
</tr>
<tr>
<td>TCAs</td>
<td>Weak*</td>
<td>Weak**</td>
<td>Weak</td>
</tr>
<tr>
<td>Other classes</td>
<td>--</td>
<td>Weak</td>
<td>-/+</td>
</tr>
<tr>
<td>SNRIs (atomoxetine)</td>
<td>--</td>
<td>--</td>
<td>Weak</td>
</tr>
<tr>
<td>Antidepressants (relapse prevention)</td>
<td>Weak*</td>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td>Antipsychotic: olanzapine</td>
<td>Weak*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Zinc</td>
<td>Weak*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Drugs for osteoporosis/osteopenia</td>
<td>Weak*</td>
<td>Weak</td>
<td>Moderate</td>
</tr>
<tr>
<td>Anticonvulsant: topiramate</td>
<td>--</td>
<td>Weak</td>
<td>+</td>
</tr>
<tr>
<td>Appetite suppressor: sibutramine</td>
<td>--</td>
<td>--</td>
<td>Moderate</td>
</tr>
<tr>
<td>Obesity drug: orlistat</td>
<td>--</td>
<td>--</td>
<td>Weak</td>
</tr>
<tr>
<td><strong>Behavioural treatment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBT</td>
<td>Weak*</td>
<td>Strong</td>
<td>Moderate</td>
</tr>
<tr>
<td>IPT</td>
<td>Weak*</td>
<td>Moderate</td>
<td>Weak</td>
</tr>
<tr>
<td>Cognitive analytical therapy</td>
<td>Weak</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>DBT</td>
<td>--</td>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td>Psychodynamic therapies</td>
<td>Weak</td>
<td>Weak</td>
<td>--</td>
</tr>
<tr>
<td>Behavioural therapies</td>
<td>Weak</td>
<td>Moderate</td>
<td>--</td>
</tr>
<tr>
<td>FBT (Maudsley)</td>
<td>Moderate*</td>
<td>Weak*</td>
<td>Weak</td>
</tr>
<tr>
<td>Specialist clinical management</td>
<td>Weak*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Nutritional counselling (alone)</td>
<td>Weak*</td>
<td>Weak</td>
<td>--</td>
</tr>
<tr>
<td>Behavioural weight loss therapy</td>
<td>--</td>
<td>--</td>
<td>Weak*</td>
</tr>
<tr>
<td>Self-help interventions (GSH/PSH)</td>
<td>--</td>
<td>--</td>
<td>Weak*</td>
</tr>
<tr>
<td>Mobile/internet/telemedicine</td>
<td>--</td>
<td>--</td>
<td>Weak</td>
</tr>
</tbody>
</table>

SSRIs: selective serotonin reuptake inhibitors  
TCAs: tricyclic antidepressants  
SNRIs: serotonin-norepinephrine reuptake inhibitors  
GSH: guided self help  
PSH: pure self help  
Evidence grades: -- Non-existent or not applicable  
Beneficial effect (reduction of symptoms or behaviours or maintenance of improvements):  
--: no RCT available  
- : no beneficial effect  
-/+: mixed results or still inconsistent results (possible beneficial effect)  
+ : slight beneficial effect  
++: moderate beneficial effect  
+++: strong beneficial effect  
*: at least one trial included adolescents (less than 18 years)
## Appendix C: Physician-initiated FBT

### Practical elements of family-based treatment that the physician can initiate when treating children and adolescents with anorexia nervosa: (Source: Findlay et al., 2010, for the Canadian Paediatric Society)

#### Parents:
- Do not cause EDs and should not be blamed
- Can be angry at the ED, not at their child who is suffering with an ED. A child or teenager with an ED is not doing it on purpose or for attention
- Need to understand that anorexia nervosa is a serious condition that probably would not improve without treatment
- Need to be responsible for their child's weight gain. Weight restoration is the first step in treatment
- Must be in charge of eating and exercise until the child has returned to health
- Should support and supervise their child's meals and snacks
- Must appreciate that EDs affect a child's ability to make reasonable decisions about food and exercise; parents must temporarily manage these areas of the child's life

#### Medical visits:
- Should be frequent at first, such as weekly or biweekly
- Should include checking the patient's weight and vital signs at each visit
- Should include meeting with the patient alone to review his or her eating attitudes, behaviours and challenges at each visit
- Should include feedback about weight and vitals to both the parents and patient at each visit
- Should include frequent reminders and encouragement to the parents about the need to insist on adequate nutrition and limit setting

#### Behavioural management:
- Encourages parents to use 'natural consequences' for food refusal. For example, do not allow the teenager to attend a sports practice until a proper dinner is eaten
- Involves a gradual return of the responsibility from the parents back to the child once the refeeding is going well
- Includes slowly integrating exercise back into the child's life once weight is steadily increasing

#### Recommendations:
- After a diagnosis of AN is made, physicians should provide initial counselling to the parents, asking them to take charge of the child's eating and exercise. Both parents (when available) should work in unison to ensure that all meals and snacks are supervised, that exercise is not excessive and that the patient attends regular visits.
- Where available, referral should be made to a specialized paediatric eating disorder service.
- Medical visits should occur regularly (i.e., weekly or biweekly) with the patient and family. These visits should include an interview with the child or teenager alone, followed by a physical examination and laboratory evaluation (when indicated) to assess the patient's physical status.
- Parents should receive feedback at every visit. If weight is not increasing, the physician, together with the parents and patient, should try to ascertain why weight is not increasing. Any excessive activity may need to be stopped or any unsupervised eating may need to be supervised.
- For patients and families who do not respond to outpatient interventions, the physician should advocate for intensive paediatric eating disorder treatment, which may include inpatient or day hospital services.
Appendix D: Validated screening tools

The following tools have been developed for use in primary care settings.

The SCOFF questionnaire is validated for use with individuals over the age of 18 years (UK 2006, p. 12; Luck et al., 2002; see also Mond et al., 2010). Researchers caution that SCOFF can produce false positives, so PCPs should be trained to follow up with a second stage of more detailed and structured primary care assessments (Johnston et al., 2007; Luck et al., 2002).

The SCOFF questionnaire (source: UK 2006, p. 12):

<table>
<thead>
<tr>
<th>If patients score 2 or more positive answers then an eating disorder is likely:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Do you make yourself sick because you feel uncomfortably full?</td>
</tr>
<tr>
<td>• Do you worry that you have lost control over how much you eat?</td>
</tr>
<tr>
<td>• Have you recently lost more than one stone [6.3 kg] in a 3-month period?</td>
</tr>
<tr>
<td>• Do you believe yourself to be fat when others say you are too thin?</td>
</tr>
<tr>
<td>• Would you say that food dominates your life?</td>
</tr>
</tbody>
</table>

For patients under 18 years of age, the following screening tool may help PCPs communicate with parents and thus screen for an ED:

Source: DeSocio et al., 2007, p. 19:

<table>
<thead>
<tr>
<th>Parent questions to help paediatricians identify the need for focused eating disorder screening*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have your child’s eating habits changed recently?</td>
</tr>
<tr>
<td>2. Do you have any concerns about your child’s weight?</td>
</tr>
<tr>
<td>3. Has your child expressed any concerns about his/her weight?</td>
</tr>
<tr>
<td>4. Has the amount of time your child spends exercising changed recently?</td>
</tr>
<tr>
<td>5. Does your family eat dinner together at the table at least 4 times a week?</td>
</tr>
<tr>
<td>6. What did your child eat for dinner last night?</td>
</tr>
</tbody>
</table>

*A “Yes” answer to any of the first 4 questions should prompt further eating disorder screening, including questions 5 and 6.
Appendix E: URLs

This document incorporates a number of hyperlinks leading to websites of interest. For those reading offline, please link to the following URLs to access websites (listed in order of appearance).

American Psychiatric Association Practice Guidelines

National Institute of Clinical Excellence Practice Guidelines

Eating Disorders Network of South East Scotland
http://ednses.com/services.php

Eating Disorders Education and Training Scotland
http://www.eeats.co.uk/index.php

National Association of Cognitive Behavioral Therapists
http://nacbt.org/certifications.htm

CBT Boot Camp (Padesky)
http://www.cognitiveworkshops.com/page20aa.html

Training Institute for Child and Adolescent Eating Disorders
http://www.train2treat4ed.com/

University of California-San Diego Eating Disorders Treatment and Research Program
http://eatingdisorders.ucsd.edu/

Planet Health
http://www.planet-health.org/

New Moves
http://www.newmovesonline.com/
Connecticut’s Practice Guidelines for Behavioural Health Care

Collaborative Mental Health network
http://www.ocfp.on.ca/English/OCFP/CME/CMHCN/default.asp?s=1

Phoenix Centre
http://www.phoenixcentre.nhs.uk/

Anorexia Nervosa Intensive Treatment Team
http://www.anitt.org.uk/index.html

Monte Nido
http://www.montenido.com/montenido/?fa=home

Joint Commission
http://www.jointcommission.org/

Monte Nido outcome study

Sheena’s Place
http://www.sheenasplace.org/

Sheena’s Place evaluation

Ontario Community Outreach Program for Eating Disorders (OCOPED)
http://www.ocoped.ca/

OCOPED training modules
http://www.ocoped.ca/03_services_e.html

OCOPED workshops
http://www.ocoped.ca/04_trainingworkshops_e.html

OCOPED inventory
http://www.ocoped.ca/PDFs/Description_funded_ED_treatment_programs.pdf

Proud 2b Me
www.Proud2bme.com

Overcoming Bulimia Online
http://www.overcomingbulimiaonline.com/
Appendix F: Glossary of terms

**After-care**
A planned and systematic approach to caring for an individual following intensive treatment, including provisions for preventing relapse.

**Anorexia Nervosa (AN)**
AN is marked by restricted food intake with or without purging behaviour, as well as a decrease in body weight (usually to 85 per cent or less than ideal) and continuous rumination about fat, weight and shape. Amenorrhea is generally also present in postmenarcheal females. Subtypes of AN include restricting, binge-eating, and/or purging.

**Binge Eating Disorder (BED)**
BED is currently included in the DSM-IV as a subcategory of EDNOS. It is the most common variety of EDNOS, involving uncontrollable binge episodes at least twice weekly for a minimum of six months.

**Body Mass Index (BMI)**
A statistical measure of weight according to height. BMI is calculated as kg/m$^2$. The DSM-IV defines a BMI of 17.5 as the upper level cut-off for a diagnosis of AN. The recommended healthy range for most people is 19-25.

**Bulimia Nervosa (BN)**
BN is marked by recurrent and generally uncontrollable bingeing and purging (including vomiting; use of laxatives, diuretics or emetics; fasting; and/or exercise). Individuals with BN may be normal body weight or overweight, and usually present with psychiatric co-morbidities.

**Cognitive Behavioural Therapy (CBT)**
A form of evidence-based psychotherapy that provides a structured intervention to assist with current problems. It may be delivered in a range of formats, individually and in groups, in person or through telehealth and computer technology.

**CBT-BN**
CBT specialized for bulimia nervosa.

**CBT-E**
CBT-Enhanced for eating disorders.

**Day hospital programs**
Hospital-based interventions that allow individuals to maintain some connection to their community while engaging structured and intensive treatment.
**Dialectical Behavioural Therapy (DBT)**
Developed by the psychologist Marsha Linehan, DBT follows four primary modules: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. DBT is frequently delivered individually and in groups.

**Dissonance interventions**
A technique for preventing eating disorders by asking participants to critique cultural ideals of thinness in order to reduce its internalization and decrease body dissatisfaction, dieting, negative affect, and ED symptoms. The significant feature of the intervention is its active delivery, as the activities are what produce the dissonance that lead to change.

**Eating disorders (EDs)**
Complex illnesses with components that are psychiatric, psychological, social and medical. The primary EDs defined in the DSM-IV are AN, BN and EDNOS.

**Eating disorder not otherwise specified (EDNOS)**
Individuals with EDNOS exhibit signs and symptoms of AN and/or BN but do not meet the full diagnostic criteria for either.

**Family Based Therapy (FBT)**
Family based therapy is a treatment protocol developed at the Maudsley Hospital in London, England, that asks parents to take full responsibility for restoring the weight of a child diagnosed with AN.

**Healthy weight interventions**
A technique for preventing eating disorders or maladaptive eating patterns, which focuses on making dietary improvements and engaging healthy levels of exercise.

**Inpatient treatment**
Inpatient hospitalization is provided for individuals who are physiologically compromised and require intensive medical intervention and stabilization.

**Interpersonal Therapy (IPT)**
A form of psychotherapy that targets interpersonal skills and processes.

**Mental health literacy**
The degree to which individuals understand the signs and symptoms of mental health problems, and are thus able to make appropriate decisions about treatment seeking, management, and/or prevention.

**Readiness and motivation**
Based on the transtheoretical model of stages of change, a readiness and motivation approach encourages clinicians to meet individuals where they are in a change process in order to tailor...
treatment according to an individual’s specific needs and build a strong therapeutic alliance. Readiness and motivation approaches are particularly beneficial when treating individuals with EDs who are, typically, ambivalent about recovery.

**Residential treatment**
A service delivery model that targets medically stable individuals who require structured, intensive therapeutic care outside of a hospital setting.

**Selective prevention**
Programs that target prevention efforts toward individuals defined as at-risk of developing an eating disorder.

**Severe and enduring eating disorders**
Chronic illnesses that have not responded to treatment.

**Telehealth/Tele-mental-health**
Use of a range of technologies to enable wider delivery of services, i.e. through video or teleconferencing or other means.

**Universal prevention**
Programs that aim to prevent eating disorders in general, addressed to wide groups of individuals.