

# Using Technology to Improve Access to Mental Health Services in Canada

## A REVIEW OF THE EVIDENCE ON INTERNET-DELIVERED COGNITIVE BEHAVIOURAL THERAPY

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**CADTH**

# Disclosure

- Funded by federal, provincial, and territorial ministries of health.
- Application fees for three programs:
  - CADTH Common Drug Review (CDR)
  - CADTH pan-Canadian Oncology Drug Review (pCODR)
  - CADTH Scientific Advice

# References

## Presentation based on:

Internet-delivered cognitive behavioural therapy for major depressive disorder and anxiety disorders: patient's experiences and perspectives, implementation, and ethical issues. Ottawa: CADTH; 2019 Feb. (CADTH Optimal use report; vol. 8, no. 2b). Available from: <http://www.cadth.ca/icbt>

Health Quality Ontario. Internet-delivered cognitive behavioural therapy for major depression and anxiety disorders: Health Quality Ontario recommendation [Internet]. Toronto (ON): Queen's Printer for Ontario; 2019 February. 4 pp. Available from: <http://www.hqontario.ca/evidencetoimprove-care/recommendations-and-reports/OHTAC/internet-delivered-CBT>

# Project Team

- A team composed of over 25 members from both CADTH and HQO
- Clinical experts who were identified by both organizations
  - A truly “collaborative” project



# Objectives

1. Background Information
  - Major depression and anxiety disorders
  - Internet-delivered cognitive behaviour therapy
2. Methods and Results of the HTA
3. Final Recommendations
4. Future Work

# Major Depression

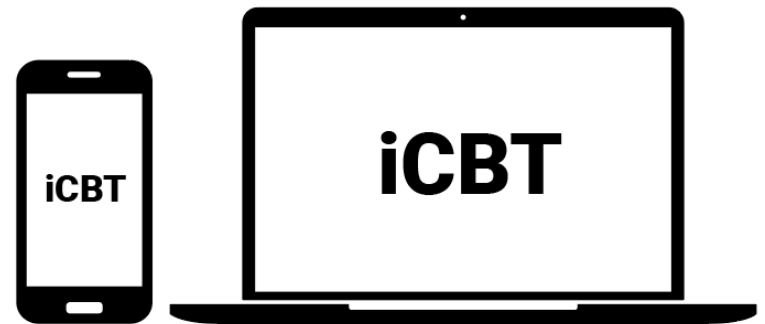
- A period of depression lasting at least two weeks characterized by depressed mood, most of the day, nearly every day, and/or markedly diminished interest or pleasure in all, or almost all, activities
  - Sadness, insomnia, loss of appetite, fatigue, irritability, feelings of hopelessness, loss of interest in hobbies, and suicidal thoughts
  - Depression is the leading cause of disability worldwide, and is a major contributor to the overall global burden of disease
  - Lifetime prevalence of 11% in Canadians

# Anxiety Disorders

- A broad range of disorders in which people experience feelings of fear and excessive worry that interfere with normal day-to-day functioning
  - Panic disorder, agoraphobia, social anxiety disorder, generalized anxiety disorder, specific phobias
  - DSM-V criteria excludes Post-Traumatic Stress Disorder (PTSD) and Obsessive Compulsive Disorder (OCD)
  - Lifetime prevalence of 28.8% in Americans

# Internet-Delivered Cognitive Behavioural Therapy (iCBT)

- CBT is an evidence-based psychotherapy that focuses on how a person's thoughts, beliefs, and attitudes affect their feelings and behaviors
- CBT is typically delivered face-to-face through a series of structured modules with clearly defined goals
- Barriers to traditional CBT are cost of treatment, perceived stigma, limited access in rural areas, long wait times, and privacy issues
- iCBT aims to provide CBT using the internet to mitigate some of these barriers



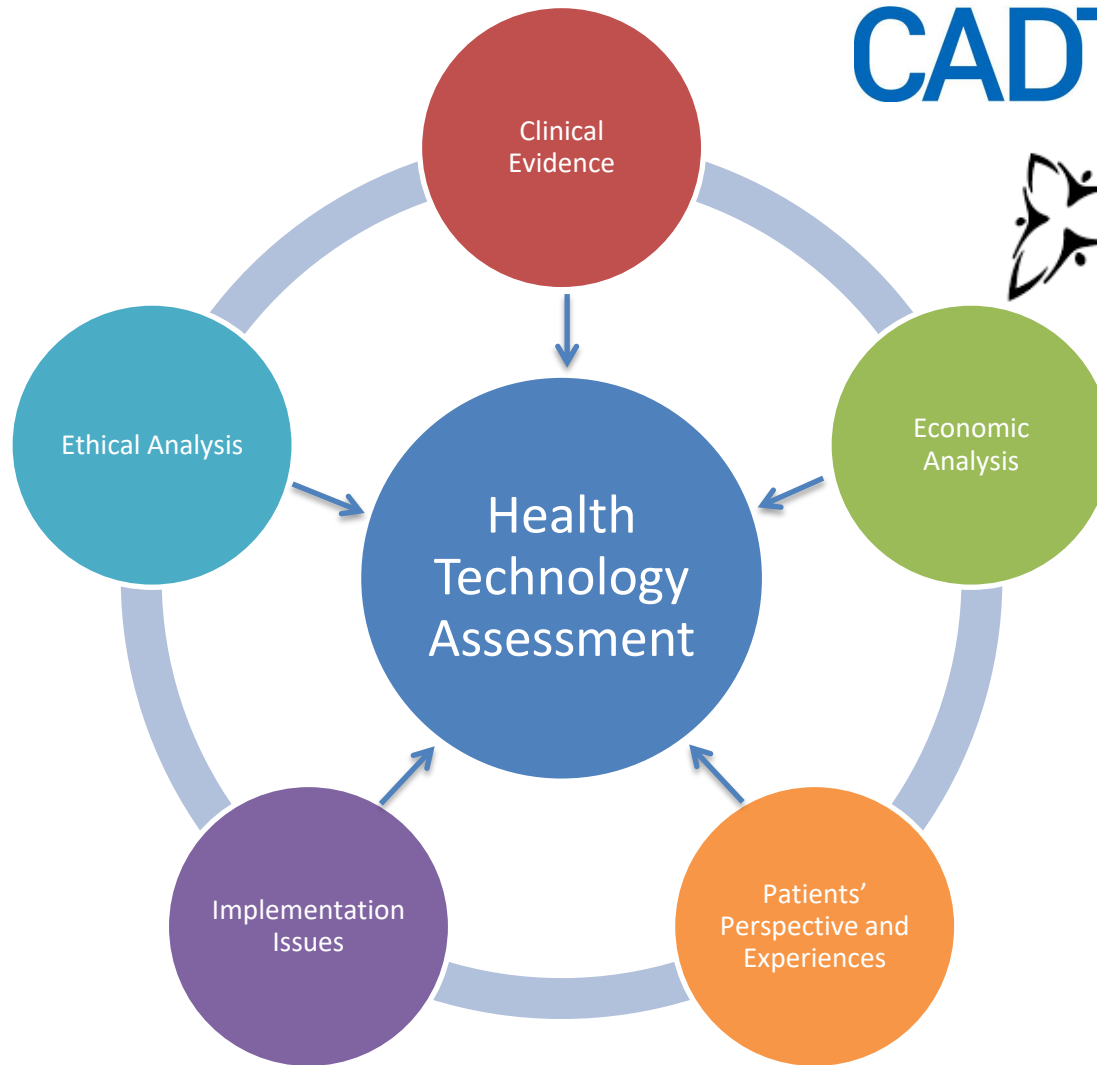


# Policy Question

Should internet-delivered cognitive behavioural therapy be offered to people with major depression or anxiety disorders?

# Methods

**CADTH** Evidence Driven.



# Clinical Review

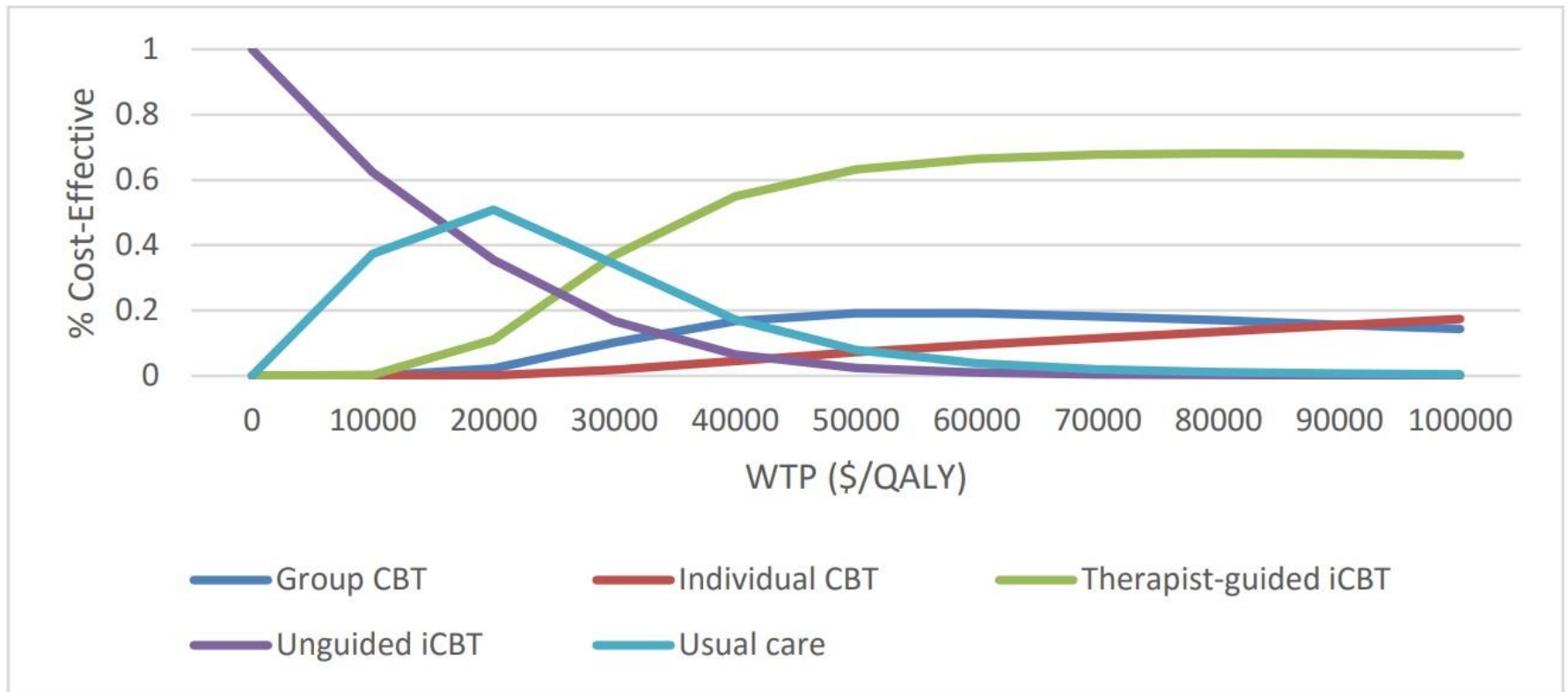
- Searched for systematic reviews published since 2000 and primary studies published more recently than the systematic reviews
  - 7 systematic reviews and 9 additional RCTs identified

- **Compared with waiting list:** iCBT improves symptoms of major depression, generalized anxiety disorder, panic disorder, social anxiety disorder
- **Compared with usual care:** iCBT improves symptoms of major depression
- **As an adjunct to usual care:** iCBT conferred a benefit over usual care alone for major depression and anxiety disorders
- **Compared with face-to-face CBT:** Limited evidence suggested that iCBT and face-to-face CBT did not differ for the reduction of symptom severity in patients with anxiety disorders; however, the comparative effectiveness of iCBT and individual or group face-to-face CBT is unclear

# Economic Analysis

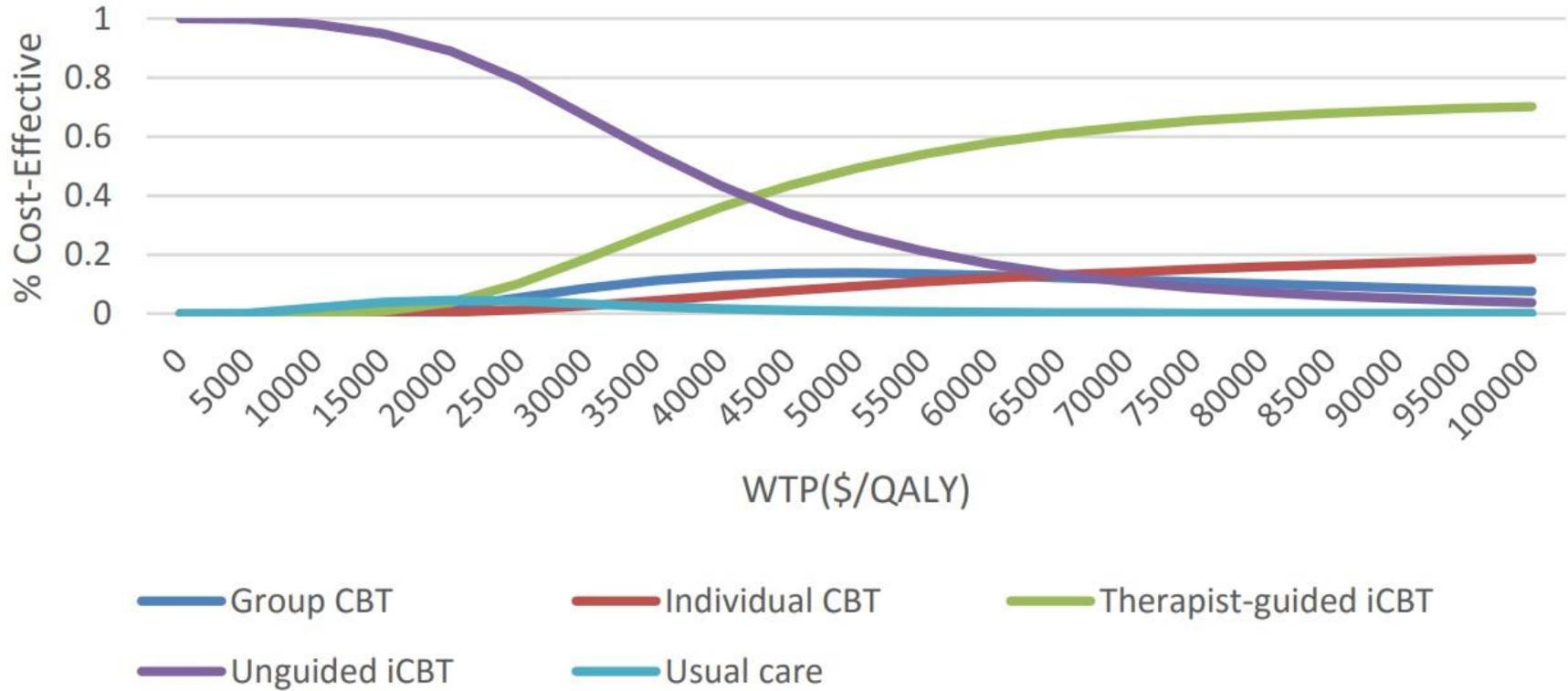
1. Searched for **economic literature** published since 2000
  - 9 systematic reviews and 31 primary economic studies
  - There was a need for a *de novo* economic analysis
  
2. Primary **economic evaluation** was conducted
  - **Analysis:** Probabilistic cost-utility analyses, decision-tree models
  - **Interventions and comparators:**
    - Unguided iCBT
    - Guided iCBT
    - Face-to-face CBT: group format / individual format
    - Usual care
  - **Outcomes:** Direct medical costs, QALYs, ICER

# Economic Analysis



**Figure 1:** Cost-Effectiveness Acceptability Curve: Internet-Delivered CBT, In-Person CBT, and Usual Care for Mild to Moderate Major Depression

# Economic Analysis



**Figure 2:** Cost-Effectiveness Acceptability Curve: Internet-Delivered CBT, In-Person CBT, and Usual Care for Anxiety Disorders

# Patients' Perspectives and Experiences

1. Direct **patient consultations** by qualitative interviews over the phone with 18 individuals with lived experience of depression or an anxiety disorder
2. A systematic review and meta-synthesis of **published primary qualitative studies on patients' perspectives and experiences** was conducted
  - 24 studies were identified and included in the analysis

- iCBT was perceived to provide improved access to therapy
- Language, computer literacy, and access to a computer and internet were identified as potential barriers
- Studies generally reported participant acceptance of iCBT
- A one-size-fits-all solution is not applicable
- While some participants valued the freedom to navigate iCBT at their leisure, guided iCBT was generally valued
- Studies spoke to the importance of individual “fit” of iCBT; programs should be adaptable to a person’s learning style, as well as mental health and engagement needs

# Implementation Issues

- Implementation issues were evaluated using information from an Environmental Scan report and a literature review of published articles
  - 24 **survey respondents** and 29 **published articles**

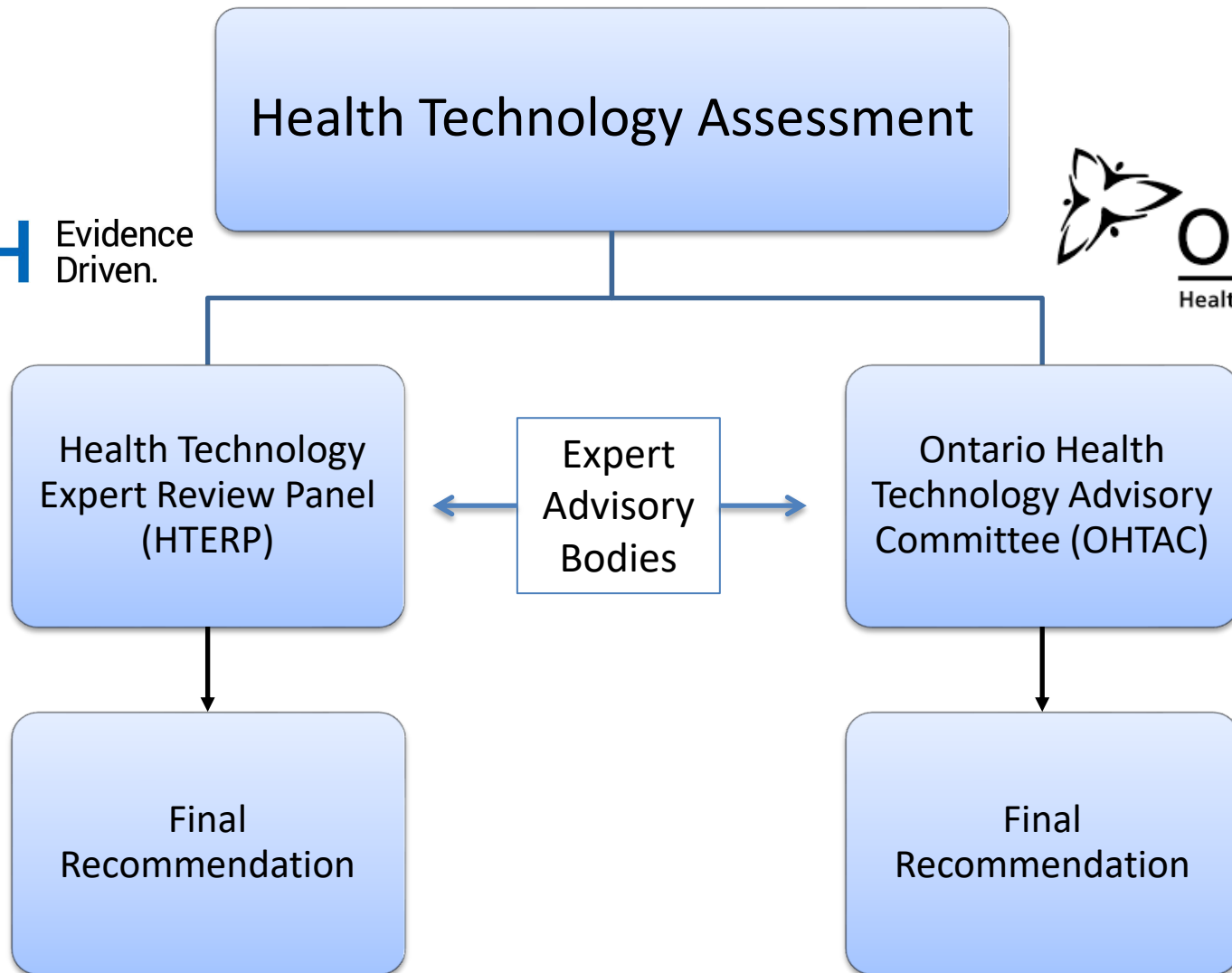
- Several factors influence implementation and uptake:
  - Perceptions and expectations, technology access/familiarity, literacy, ethnicity, level of education, age, sex
  - Geographic location
  - New policies or avenues of funding to increase access to iCBT
- Strategies to facilitate implementation:
  - Keep stakeholders engaged
  - Consider target populations (i.e., customization of iCBT modules)
  - Integrate iCBT into existing clinical pathways
  - Consider a stepped care approach



# Ethical Analysis

- An analysis of the empirical and normative bioethics, clinical, and public health literatures was conducted to identify ethical issues related to the implementation of iCBT
  - Informed by a review of 57 reports

- Themes fell under the following seven broad ethical principles or domains:
  - Trust and the therapeutic alliance
  - Privacy and confidentiality
  - Beneficence and the uncertainty of new treatment modalities
  - Nonmaleficence and limitations to client safety
  - Justice and enhanced access
  - Respect for autonomy and informed consent
  - Professional and legal issues



# CADTH Final Recommendation

“The Health Technology Expert Review Panel recommends that guided Internet-delivered cognitive behavioural therapy be offered to adults with mild to moderate major depressive disorder and/or anxiety disorders.”

**CADTH** Evidence  
Driven.

Available from: <http://www.cadth.ca/icbt>

# HQO Final Recommendation

“Health Quality Ontario, under the guidance of the Ontario Health Technology Advisory Committee, recommends publicly funding guided internet-delivered cognitive behavioural therapy for mild to moderate major depression and anxiety disorders”



Available from: <http://www.hqontario.ca/evidencetoimprove-care/recommendations-and-reports/OHTAC/internet-delivered-CBT>

# Future Work

- Ongoing work with stakeholders across the country to support the implementation of these recommendations
- CADTH has initiated an Optimal Use project on iCBT for Post-Traumatic Stress Disorder (PTSD)
  - **Expected Completion Date: June, 2020**

Available from: [www.cadth.ca/internet-based-cognitive-behavioural-therapy-post-traumatic-stress-disorder](http://www.cadth.ca/internet-based-cognitive-behavioural-therapy-post-traumatic-stress-disorder)

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