

## Knowledge Synthesis: COVID-19 in Mental Health and Substance Use

### Instructions:

The [Operating Grant: Knowledge Synthesis: COVID-19 in Mental Health and Substance Use](#) was designed to enable the development of rapid and timely knowledge syntheses and related knowledge mobilization plans to address evidence gaps and build the evidence base as part of the mental health and substance use response to COVID-19.

As outlined in the decision letters sent to successful applicants, this template is being provided in order to facilitate the rapid sharing of results with relevant [knowledge users](#). Information recorded in this report may be made available to policy makers, healthcare and service providers, partners, and the general public, and will be used to populate a website and inform a variety of CIHR knowledge mobilization products. Responses should be written in plain language, respecting word limits where indicated.

Email completed report to [COVID19MH-COVID19SM@cihr-irsc.gc.ca](mailto:COVID19MH-COVID19SM@cihr-irsc.gc.ca) by **June 22, 2020**.

**Synthesis Title:** Interventions to Mitigate COVID-19 Related Mental Health Risks for Those with Pre-Existing Chronic Health Conditions and Facing Social and Economic Barriers: A Scoping and Rapid Realist Review

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### Target/priority population(s) in synthesis:

1. **Individuals with health conditions that present risk of contracting COVID-19:** Obesity; Diabetes mellitus; Cancer; Cardiovascular disease; Respiratory conditions (asthma, lung disease, COPD, emphysema, bronchitis); Autoimmune conditions (rheumatoid arthritis, systemic lupus erythematosus, multiple sclerosis, Guillain-Barre syndrome, chronic inflammatory demyelinating polyneuropathy, psoriasis); Inflammatory bowel disorders (e.g., ulcerative colitis, crohn's); Kidney disease; Liver disease; HIV/AIDS; Hepatitis; Frailty; Neurocognitive conditions (dementia, Parkinsons, epilepsy); and

## **2. Individuals who are homeless, underhoused**

The target/priority population must also be at risk for or have at least one of the following mental health indicators:

- Depressive Disorders/Depression, Anxiety Disorders/Anxiety, Bipolar Disorder/Mania; Schizophrenia, Schizoaffective; Psychotic Disorder, Psychosis; Obsessive Disorders, Neurosis; PTSD, Trauma, Stress; Substance use, addictions, compulsive behaviours; Disruptive, Impulse-Control and Conduct Disorders, impulsivity

Within these groups, subgroup analysis will be for equity-seeking/priority populations that include: men/women, older adults, immigrants, refugees, newcomers, ethnocultural and racialized communities, First Nations, Inuit and Métis, 2SLGBTQ+, individuals with disabilities,

### **What is the issue?**

In the absence of a vaccine or cure for COVID-19, it is of utmost importance to address its public mental health challenges. In particular, the COVID-19 pandemic has elevated the need to assess the impact of measures such as quarantine, physical distancing, and altered health care access as well as acute mental health concerns resulting from physical distancing, extended emergency state, unexpected unemployment, and complicated grief, to minimize its societal and economic impacts. These knowledge needs are particularly critical for those with pre-existing health conditions who are at elevated risk for contracting COVID-19 and mitigating their mental health risks associated with preventative measures and acute / rehabilitative care for COVID-19. There are many shared determinants such as socioeconomic factors, health behaviours, comorbidities, and environmental factors that contribute to poor mental health, substance use, and communicable diseases, little is known about which are distal or proximal indicators and how they are independently or interdependently associated with these outcomes. The proposed knowledge synthesis (integrated scoping and rapid realist review) will help to address knowledge gaps about how to prevent or mitigate mental health and substance use responses for those at risk of severe COVID-19 infection. This may help to shape effective program and policy interventions that can foster resilience during future disease outbreaks.

### **Key messages (max 100 words):**

COVID-19's impact has and continues to have devastating impacts, particularly among those who are at-risk and/or have challenges in functioning in a society that changed suddenly and dramatically. For many this has led to mental health effects such as depression, anxiety, uncharacteristic behavioural changes, and use of substances to help mask the pandemic's consequences. However, there is opportunity to support population health during these difficult times by offering appropriate interventions that have the flexibility to be tailored to subpopulations with unique needs. The knowledge synthesis, currently in progress, aims to help identify such interventions that will foster individual resilience and mental well-being.

## How was the synthesis conducted?

The synthesis currently in programs includes the following searches:

### A. Academic Databases – English Language:

Database	Search Terms	Limiters	Results
EMBASE	COVID-19 coronaviruses AND Obes* or Diab* or Neoplas* or tumor or	English language, full texts, human, Timeframe: December 2019 to present	873
Medline (OVID)	cancer or malignan* Cardiovasc* or heart* or coronary* or myocar* or stroke* or cerebrovas* or ischem* or Respir* or asthma or lung dis* Or pulmon* or chronic obstructive lung or chronic obstructive pulmonary		189
PsychInfo	or COPD or ayspnea or empnys* or bronchitis or κνευματοια αρτηριτις		TBD
CINAHL	or systemic lupus erythematosus or multiple sclerosis or Guillain-Barre syndrome or demyelinating polyneuropathy or psoriasis or		TBD
Sociological Abstracts	inflammatory bowel disorders or IBD or colitis or ulcerative colitis or crohn's or Kidney dis* or urol* or nephr* or renal dis* or liver disease or hepatitis or HIV or AIDS or frailty or Neurocogn* or neurol* or dementia or amnestic or Alzheim* or Parkin* or epilepsy AND Depress* or Anxiety or Bipolar, Mania or Schizophr*, Schizoaff* or Psychot*, Psychos* or Obsess*, Neurosis or Post-traumatic* or PTSD or Trauma or Stress or Substance* or addict* or compuls* drug abuse or drug dependence or Disrupt*, Impulse* or Conduct		TBD
	COVID-19 coronaviruses AND homeless or underhoused	TBD	

### B. Academic Databases – Chinese Language:

Database	Search Terms	Limiters	Results
CKNI	Search term: (新型冠状病毒肺炎) & (心理) & (干预)	Full texts, human, Timeframe: December 2019 to present	67
Airititi	(COVID-19) & (Mental health) & (Intervention)		TBD

### Assumption:

The following priority/Health Equity Seeking populations would be captured in the search

Vulnerable subpopulations facing social and economic barriers (e.g., men/women, older adults, immigrants, refugees, newcomers, ethnocultural and racialized communities, First Nations, Inuit and Métis, 2SLGBTQ+, individuals with disabilities).

### C. Grey Literature

1. Conference proceedings/papers: PapersFirst and ProceedingsFirst
2. International, national & provincial non-profit organizations: World Health Organization, Mental Health International, Mental Health Foundation (UK), MIND UK, International Research Community on Multimorbidity, Equally Well – Australia, New Zealand, UK
3. National: Alzheimer's Society of Canada, Anxiety Disorders Association of Canada, The Arthritis Society of Canada, The Asthma Society of Canada, Autism Canada, Canadian Centre on Substance Use and Addiction, Canadian Diabetes Association, Canadian Frailty Network, Canadian Hypertension Society, Canadian Lung Association, Canadian Mental Health Association, The Centre for ADHD Awareness (Canada), Crohn's and Colitis Canada, Heart and Stroke Foundation of Canada, Metabolic Syndrome Canada, Mood

Disorders Society of Canada, Obesity Canada, Obsessive Compulsive Disorder (OCD) Canada, Parkinson Canada, Schizophrenia Society of Canada, Diabetes Canada, Cardiac Health Foundation of Canada, Huntington Society of Canada, Kidney Foundation of Canada, The Centre of Excellence for Women's Health, Medical Psychiatry Alliance

Provincial chapters of national non-profit organizations listed above (as applicable)

4. Government departments or agencies (international and national): Ministries of Health (federal and provincial), including departments of chronic disease and primary care; Provincial and regional health authorities; Public Health Agency of Canada; Centre for Health Services and Policy Research (CHSPR), University of British Columbia; Health Quality Council, Saskatchewan; Institute for Clinical Evaluative Sciences (ICES), Ontario; Institute of Health Economics (IHE), Alberta; Agency for Healthcare Research and Quality (AHRQ), USA; Public Health Ontario
5. National & provincial healthcare provider associations: Canadian Medical Association, Canadian Psychiatric Association, Canadian Psychological Association, Canadian Nurses Association, Canadian Physiotherapy Association, Canadian Association of Occupational Therapists, Dietitians of Canada  
Provincial chapters of associations listed above (where applicable)
6. Cited reference checking (reference mining and snowballing)
7. Personal contacts

**What did the synthesis find? Provide a lay summary of the outcomes (max 300 words):**

Based on a preliminary high-level review of the literature there are many biological, social, behaviour, and environment factors that are shared between physical health conditions that present risk of COVID-19 and mental health responses. Biological contributors include one's genetics as well as immune system and hormone imbalances. Social and behavioural factors include the stresses physical distancing, being vulnerable to lowered access to food, recreation, and public transport, disturbed sleep, overloaded hospital services that lead to premature discharges, and widespread panic to the uncertainties of a new illness may lead to mental health effects such as psychiatric condition diagnosis. At wider levels, issues such as reduced health services, absence of adequate testing, poor coordination among health and social services, and lack of accepted ways to manage COVID-19 may also weigh heavily on one's consciousness. Mental health responses that have been reported include anxiety, depression, harmful use of substances, defensive and rebellious behaviour, in-home conflicts, repetitions of unresolved childhood issues, and emotional depletion. For families where a member has experienced COVID-19 infection or related death, delayed mourning and post-trauma experiences have also been documented.

Based on the COVID-19 events to date, more targeted and integrated interventions to lessen mental health impacts are needed. First, there is a need for widespread awareness-raising through common media channels that fully engages people and fosters understanding about COVID-19 and mental health. Second, for those experiencing poor mental health, diverse and flexible approaches such as shared health care planning, online counseling, and genuine social interaction and integration may be effective. Finally, rehabilitation guidelines for COVID-19 co-developed by different practitioners may also reduce the mental health burden of recovery. In conclusion, while the current COVID-19 situation appears to be somewhat controlled, the threat of future outbreaks points to the urgent need to identify and evaluate strategies that can promote mental well-being.

**What are the implications of this synthesis?**

This integrated scoping and realist review, guided by a committed interdisciplinary team of researchers, knowledge users (policy experts, clinicians) and patient partners, will provide efficient, cost-effective, and relevant information that will enable a better understanding of mental health and substance use risks related to COVID-19 pandemic mitigation responses, disease spread, and course of illness. The findings will foster better understandings of how different interventions (e.g., targeted policies and education, e-health, m-health, self-management programs, adjunct treatments to standard care) and responses can foster mental health among different populations at risk for COVID-19 infection. Collectively, the project outcomes will generate timely and relevant evidence-based research, policy, and practice-relevant information that seeks to prevent negative disease trajectories for vulnerable population groups.

**List up to 10 keywords specific to this synthesis to facilitate website search filters and**

**sorting:** (e.g. depression, virtual care, autism, opioids, racism, chronic pain, sleep, etc.)

1. COVID-19
2. Mental health
3. Substance use
4. Chronic diseases
5. Autoimmune conditions
6. Inflammatory bowel disorders
7. Kidney diseases
8. Liver diseases
9. HIV or AIDS
10. Neurocognitive conditions

## Background References

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