The Conference Board of Canada

Nurturing Minds for Secure Futures

Timely Access to Mental Healthcare Services for Children and Youth in Canada



Contents

3 Key findings and recommendations

4 Introduction

11 Discussion

14 Recommendations 17 Appendix A Methodology

18 Appendix B Model inputs

Appendix C Pooled prevalence of childhood mental disorders

21 Appendix D Bibliography

Key findings

- An estimated 1.6 million children and youth in Canada are estimated to have a mental health disorder.
- Anxiety and depression are among the most common reasons children and youth need access to mental healthcare services and supports.
- Children and youth who are Black, Indigenous, and people of colour and youth coming into their sexual and gender identities have the highest rates of anxiety and depression and are at the highest risk.
- Response and support by families, healthcare, and communitybased mental health services for children and youth with anxiety and/or depression currently cost Canada \$4 billion annually.
- \$3.5 billion for publicly funded systems (healthcare, mental healthcare, substance use and addiction)
- \$280 million in parental income lost to support caregiving
- \$120 million in resources engaged by education and justice systems
- Without timely investments, the lifetime cost of just one cohort of children with onset of anxiety and/or depression at the age of 10 is close to \$1 trillion.
- Investments in children's mental health today, with a focus on accessible and inclusive programming for vulnerable populations, can nurture minds and secure futures for Canadian children and youth and save \$28 billion annually.

Recommendations

- Develop and fund a pan-Canadian child health strategy with mental healthcare as a key pillar.
- Dedicate investments to evidence-informed, outcomes-based programs for children's mental healthcare, considering the unique needs of vulnerable populations.
- Invest in Canada's mental health professionals with expertise in children and youth.
- Create a national data strategy for child and youth mental health to inform progress, excellence, and accountability.





Introduction

This research explores the crisis in access to mental healthcare prevention, assessment, diagnoses, and treatment services for children and youth. We quantify the evidence-informed consequences of not investing today to ensure timely access to mental health services and supports for current and future generations of Canada's children and youth.

Our analysis focuses on anxiety and depression. Anxiety is the most prevalent mental health condition among children and youth in Canada^{1,2,3} and depression disorders are among the top five and often occur with anxiety disorders.⁴ In addition, anxiety and depression have been noted at the population level as the leading causes of disease burden among children and youth.⁵

¹ Spady and others, "Prevalence of Mental Disorders in Children Living in Alberta, Canada, as Determined From Physician Billing Data."

² Waddell and others, "A Public Health Strategy to Improve Mental Health of Canadian Children."

³ Barican and others, "Prevalence of Childhood Mental Disorders in High-Income Countries."

⁴ Kalin, "Anxiety, Depression and Suicide in Youth."

⁵ Klaufus and others, "Adolescent Anxiety and Depression."

Background

Mental health is an essential component of health, a state of well-being in which an individual matures into realizing their unique abilities, learns ways to cope with and communicate emotion, engage with learning and work environments, and participate in community.⁶

"Mental health disorders" refers to a wide range of mood, thinking, and behavioural experiences co-existing on a continuum that ranges from optimal mental well-being to debilitating emotional suffering.⁷ They are defined as conditions of anxiety, depression, attention-deficit/hyperactivity disorder, obsessive compulsive behaviours, and/or harmful relationships with social media, food, alcohol, or drugs—to name a few.^{8,9} Mental health concerns become a mental health disorder when symptoms frequently interfere with a person's capacity to function in their daily life.^{10,11}

A variety of genetic, neurological, socio-environmental, and socio-economic factors may influence the onset of mental health disorders. Life circumstances combined with institutional, systemic, and structural realities (e.g., racism, homo- and trans-phobia, or colonialism) can also play a role.^{12,13,14} Most mental health conditions are rooted in childhood and can begin in the teenage years.

- 6 World Health Organization, "World Mental Health Report."
- 7 Ibid.
- 8 Public Health Agency of Canada, "Mental Health and Problematic Social Media Use in Canadian Adolescents."
- 9 National Institute of Mental Health, "Substance Use and Co-Occurring Mental Disorders."
- 10 World Health Organization, "ICD-11 for Mortality and Morbidity Statistics."
- 11 World Health Organization, "World Mental Health Report."
- 12 Ibid.
- 13 Gajaria and others, "What's Race Got to Do With It?"
- 14 Hankerson and others, "The Intergenerational Impact of Structural Racism and Cumulative Trauma on Depression."

Conditions presenting in young adulthood are typically secondary conditions added upon those that emerged early in life.¹⁵ By age 40, half of the population has or has had a mental health condition.¹⁶ In situations when a child's mental health may be "at risk" but who has not received an assessment or diagnosis, early intervention can enable and foster the development of resilient coping mechanisms into early adulthood.

A child's developmental journey enters a new phase as they transition to young adulthood. They also must enter the adult healthcare system. However, there is limited coordination or continuity of care and services, or alignment of health human resources capacity (professional regulations or expertise) during this transition. For instance, when young people receiving care for a mental health concern turn 18, they no longer qualify for child and youth mental health services and supports. The abrupt transition to adult healthcare services can be particularly hard on young adults who are people of colour and/or 2S-LGBTQIA+ given the higher incidence of discrimination, harassment, and physical and sexual assault that they can experience.^{17,18}

In Canada, 70 per cent of mental health issues begin before the age of 18.¹⁹ In 2022, an international review of 11 high-income countries reported that, among 12 childhood mental health disorders, anxiety, attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder, and substance use disorders were the four most common among children under 18 years of age.

- 16 Smetanin and others, The Life and Economic Impact of Major Mental Illnesses in Canada.
- 17 Cotter, "Experiences of Discrimination Among the Black and Indigenous Populations in Canada, 2019."
- 18 Jaffray, "Experiences of Violent Victimization and Unwanted Sexual Behaviours Among Gay, Lesbian, Bisexual and Other Sexual Minority People, and the Transgender Population."
- 19 Mental Health Commission of Canada, "Children and Youth."

¹⁵ Kessler and others, "Age of Onset of Mental Disorders."

(See Table 2 in Appendix C for a full list of conditions from this review.²⁰) The same study also estimated that 26 per cent of children commonly experience two or more disorders.²¹

Early identification and timely evidence-informed psychosocial prevention, supports, and interventions (e.g., Cognitive Behavioural Therapy) and other approaches are critical in early childhood. They can foster strong and healthy foundations for coping, address social determinants of mental health, connect families with community supports, and mitigate potential adverse outcomes associated with unmet mental health needs. Collectively, early childhood mental health supports and services can reduce the likelihood that more severe mental health disorders will emerge or persist into adulthood.²²

The number of children and youth in Canada (4 to 19 years old) estimated to have a mental health disorder in 2023 ranges from 801,935 to 1.6 million.

- The lower estimate is based on a pooled prevalence rate of 12.7 per cent for diagnosed mental health disorders reported by an international study.²³
- The upper estimate of 1.6 million is calculated with the knowledge that mental health disorders are largely under-diagnosed and the rate is likely much higher as one in five (20 per cent) of children and youth experiences a mental health disorder.²⁴

20 Barican and others, "Prevalence of Childhood Mental Disorders in High-Income Countries." 21 Ibid.

- 22 Copeland and others, "Childhood and Adolescent Psychiatric Disorders as Predictors of Young Adult Disorders."
- 23 Barican and others, "Prevalence of Childhood Mental Disorders in High-Income Countries."
- 24 Mental Health Commission of Canada, "Children and Youth."

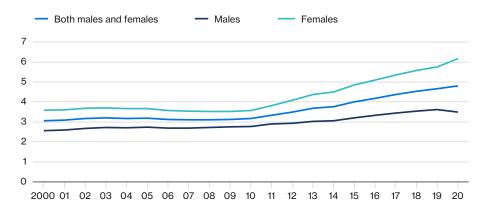
The urgency and imperative for action

A review of current data shows a steady downward trend in the mental health of youth in Canada over the past two decades.²⁵ In 2003, 76 per cent of young people (15 to 30 years of age) reported having excellent or very good mental health. By 2019, that rate had dropped to 60 per cent.²⁶ More recently, these rates have worsened, in part related to the COVID-19 pandemic and the vast social change experienced by children and youth during their important developmental years.

In addition, the use of healthcare services by children and youth for anxiety and mood disorders significantly increased over the last decade, particularly among females. (See Chart 1.)

Chart 1

Increased use of health services for mood and anxiety disorders among children and youth (ages 1–19) in Canada (prevalence, per cent)



Sources: The Conference Board of Canada; Canadian Chronic Disease Surveillance System.

25 Statistics Canada, "Portrait of Youth in Canada." 26 Ibid. In 2020, worldwide public health measures to help contain the spread of COVID-19 contributed to a decrease in overall admissions to pediatric hospitals and visits to emergency departments.²⁷ However, pediatric mental health visits increased (compared with pre-pandemic years)^{28,29} and the global prevalence of depression and anxiety disorders among children and youth markedly increased.^{30,31,32}

In 2020, 23 per cent of hospitalizations among Canadian children and youth aged 5 to 24 were for a mental health disorder.³³ In Canada, hospital admissions for eating disorders, self-harm, anxiety, and substance use doubled since the start of the pandemic.³⁴



- 27 Scaramuzza and others, "Changing Admission Patterns."
- 28 Czeisler and others, "Mental Health, Substance Use, and Suicidal Ideation."
- 29 Krass and others, "US Pediatric Emergency Department Visits for Mental Health Conditions During the COVID-19 Pandemic."
- 30 Racine and others, "Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents During COVID-19."
- 31 Schwartz and others, COVID-19 and Children's Mental Health.
- 32 Theberath and others, "Effects of COVID-19 Pandemic on Mental Health of Children and Adolescents."
- 33 Canadian Institute for Health Information, *Health System Resources for Mental Health and Addictions Care in Canada.*
- 34 Children's Healthcare Canada, A Child and Youth Mental Health Leadership Summit Series.

A 2020 study by Sick Kids Hospital in Toronto showed that children and youth with and without pre-existing mental health disorders experienced deterioration in mental well-being during consecutive waves of the pandemic.³⁵

Between ages 0 and 25, children and young people experience many psychosocial and neurobiological changes that are a normal part of their developmental journey. These developmental changes combined with determinants of social and emotional health and well-being can also introduce vulnerability to experiencing a mental health disorder.³⁶ Children experiencing neurodevelopmental disability and/or child onset of physical disabilities are also more likely to have higher rates of experiencing a mental health condition, and need for developmental support, prevention, and care.³⁷

Unfortunately, access to prevention, assessment, and mental health services and supports is limited and inequitable.^{38,39} Internationally, only 44 per cent of children with a mental health disorder received any mental healthcare services.⁴⁰ The majority (56 per cent) are simply not receiving any mental health services and supports – missing a significant opportunity to establish positive resilience patterns and foundations for social and emotional well-being.

Children and youth with poor mental health have lower overall grades at school,⁴¹ difficulty making friends,⁴² higher risk of suicide,⁴³ and are disproportionately represented in the justice system.⁴⁴

- 35 Tombeau Cost and others, "Mostly Worse, Occasionally Better."
- 36 Fusar-Poli, "Integrated Mental Health Services for the Developmental Period."
- 37 Brooks and others, "Social Participation to Support Good Mental Health in Neurodisability."
- 38 Moroz and others, "Mental Health Services in Canada."
- 39 Murray and Knudson, "Mental Health Treatment and Access for Emerging Adults in Canada."
- 40 Barican and others, "Prevalence of Childhood Mental Disorders in High-Income Countries."
- 41 Statistics Canada, "Canadian Health Survey on Children and Youth, 2019."
- 42 Ibid.
- 43 Bachmann, "Epidemiology of Suicide and the Psychiatric Perspective."
- 44 Canadian Mental Health Association, "Justice and Mental Health."

They can also experience higher unemployment, reduced income potential later in life,^{45,46} and co-occurring substance use disorders.⁴⁷ On the flip side, self-reported fair, good, very good, or excellent mental health contributes significantly to high ratings of life satisfaction—a significant indicator of mental health well-being—or social and emotional wellness⁴⁸ and academic performance.⁴⁹

Profound need

Canada has limited provincial/territorial data on wait times for mental healthcare services for children and youth. Moreover, waitlist data should be interpreted with caution as there is no central wait list, and therefore duplicates may be included. That said, Ontario data from 2020 are available and illustrative of the fact that wait times are problematic for serving the mental health needs of children in Canada when they most need it. In 2020, about 28,000 Ontario children and youth with mental health needs were reportedly on wait lists for treatment, a statistic that has more than doubled since 2017.⁵⁰ Average wait times were 67 days for counselling and therapy and 92 days for intensive treatment. In some cases, wait times for intensive treatment reached 2.5 years – essentially irrelevant in terms of responsiveness for those in crisis.

To compound the issue, an estimated 200,000 Ontario children with serious mental health issues received no mental health services at all because of where they lived. Treatment programs are non-existent in many rural, remote, and Northern communities.⁵¹

Focus on anxiety and depression

Anxiety and depression are among the most commonly co-occurring mental health conditions among children and youth and are the leading causes of disease burden on children and youth themselves and Canadian society.^{52,53,54}

For these reasons, we conducted a cost-of-illness study of anxiety and depressive disorders as a means of quantifying the economic impact of these conditions in childhood and adolescence and the imperative for investing in timely access to child and youth mental healthcare services and supports for these conditions.

In 2019, the prevalence of *diagnosed* anxiety disorder and/or depression among 5- to 17-year-olds was 5.0 and 2.1 per cent, respectively.⁵⁵ Applying these rates (average of 3.5 per cent) to the current population implies that 290,942 children and youth in Canada are estimated to have an anxiety and/or depressive disorder. This figure is likely a gross underestimation, due to several factors. Access to prevention, assessment, and diagnostic services are limited. The estimates do not include data from underserved (e.g., rural/remote, racialized, Indigenous) communities, in which children and families have limited to no access to services and thus no data are collected. System-level differences around data collection standards and lack of information-sharing across healthcare and allied health and social/community services further contribute to under-reporting.

- 45 Marwaha and Johnson, "Schizophrenia and Employment."
- 46 Vergunst et al., "Association of Childhood Externalizing, Internalizing, and Comorbid Symptoms With Long-Term Economic and Social Outcomes."
- 47 Ross and Peselow, "Co-Occurring Psychotic and Addictive Disorders."
- 48 Lombardo and others, "The Fundamental Association Between Mental Health and Life Satisfaction."
- 49 Rode and others, "Life Satisfaction and Student Performance."
- 50 Children's Mental Health Ontario, "Kids Can't Wait."
- 51 Statistics Canada, "Portrait of Youth in Canada."

- 52 Klaufus and others, "Adolescent Anxiety and Depression."
- 53 Spady and others, "Prevalence of Mental Disorders in Children."
- 54 Barican and others, "Prevalence of Childhood Mental Disorders in High-Income Countries."
- 55 Statistics Canada, "Canadian Health Survey on Children and Youth, 2019."

A recent meta-analysis (2022) comparing pre- and post-pandemic data demonstrated that the risk of developing anxiety and depression among children and youth rose during the pandemic.⁵⁶ Applying these assumptions situates the 2023 prevalence for these conditions combined closer to 9 per cent, significantly higher than the 3.5 per cent reported in 2019.

Assuming a prevalence rate of 9 per cent (as outlined above), we estimate that there are over half a million (569,374) children and youth aged 5 to 19 in Canada who have a need for mental healthcare services to address anxiety and/or depression.

The economic cost of supporting children and youth in Canada who experience anxiety and depression is \$4 billion per year.

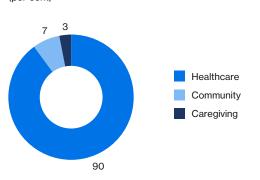
At the population level, the largest expenditure resides in direct healthcare costs (90 per cent), which equates to \$3.5 billion and includes costs associated with emergency department visits, inpatient hospital stays, primary care encounters with general practitioners, pediatricians, psychiatrists, use of prescription medications, and counselling and/or therapeutic services. (See Chart 2.)

- Community costs, such as resources engaged by education and justice systems, are also high. The annual cost is \$280 million and is primarily linked to children and youth with greater mental health needs, for whom these services are required.
- We also estimate an annual economic productivity loss of approximately \$120 million that is attributed to the loss of parental income to support caregiving for a child with mental health needs.

Given the systemic factors noted above contributing to a likely underestimation of the overall prevalence of *diagnosed* anxiety disorder and/or depression among children and youth, even with our assumptions at 9 per cent, these cost estimates are likely an underestimation as well.

Chart 2

Proportion of reported expenditures for mental health care among children and youth in Canada (per cent)



Source: The Conference Board of Canada.

If Canada invests in mental healthcare services and supports to reduce the prevalence rate of anxiety and depression disorders to pre-pandemic levels, the costs would decrease from \$4 billion to \$1.5 billion per year.

Investments in evidence-informed mental healthcare prevention, as well as in services and supports for children and youth, young adults, and parents/guardians, are crucial to mitigate negative lifetime consequences. Preventative interventions and evidenceinformed models have shown increased likelihood of social and emotional wellness into adulthood.⁵⁷ Such initiatives must encompass both clinical and socio-economic approaches to also address parenting/caregiver supports and services to ensure and secure healthier futures into adulthood with improved outcomes across social and emotional well-being, as well as education, employment, and community involvement.

⁵⁶ Wang and others, "Depression and Anxiety Among Children and Adolescents Pre and Post COVID-19."

⁵⁷ Pilling and others, "Long-Term Outcomes of Psychological Interventions on Children and Young People's Mental Health."

It is important to note that many children and youth with mental health and dominant neurodevelopmental needs will thus require customized and tailored approaches to individual and family/ caregiver supports and services. In Canada, approximately 65 to 80 per cent of children with attention deficit hyperactivity disorder (ADHD), and 85 per cent of adults with ADHD, also experience depression, anxiety, and/or other more complex developmental and/or health disabilities.⁵⁸

Given the higher costs associated with poor mental health in children and adults, investing in children today can save governments and communities \$28 billion per year. If no actions are taken, then the lifetime cost of just one cohort of children who have onset of anxiety and depression at the age of 10 is close to \$1 trillion. Similar to previous studies, data and model limitations must be considered.⁵⁹ Since Canada lacks comprehensive public data on mental healthcare costs and services utilization, much of the data in this issue briefing come from individual studies and previous cost-of-illness studies. As a result, many measures are missing from our model. Due to data limitations as well as complexity in defining pathways of care and outcomes, many outcomes such as school drop-out rates, attempted suicides, and caregiving costs in adulthood are not included in the model. A national perspective was taken, and as a result, analysis of differences across provinces, territories, and diverse and/or vulnerable populations such as Indigenous, newcomer youth, youth with disabilities, people of colour, and/or 2S-LGBTQIA+ youth was not feasible.

58 Espinet and others, "A Review of Canadian Diagnosed ADHD Prevalence and Incidence Estimates Published in the Past Decade."

59 Jo, "Cost-of-Illness Studies."



Discussion

System fragmentation

Publicly funded child and youth mental healthcare, allied healthcare, and community- and/or education-based services and supports encompass various types of expertise, settings, and organizations, including:

- psychiatrists, psychologists, psychiatric nurses, social workers, counsellors
- · residential treatment services and programs
- · primary healthcare services
- · acute (in-patient and outpatient) and emergency care services
- support services in school settings and other community-based organizations
- virtual healthcare services and phone talk/text help lines.

Different care providers and settings, in the publicly funded, private, and not-for-profit mental healthcare services sectors, are largely working in siloes. In terms of governance, there is lack of collaboration and/or information-sharing across ministries (e.g., health, education, child and youth services) that provide funding and oversight on publicly funded policies and programs.

This variation contributes to inequities in access across a multitiered system of public, private, and not-for-profit sectors.⁶⁰ Salaries of publicly funded mental healthcare professionals (psychologists, therapists, occupational therapists, speech language pathologists, and other allied professionals) are a fraction of what is earned in private practice. Interprofessional teams enable efficiencies and

60 Canadian Mental Health Association, "Justice and Mental Health."

collaborative programming for children, youth, and families; and psychologists are on salary in these models, so no fees are charged to families. Psychiatrists can bill for services in provincial/territorial healthcare systems, but psychologists and psychotherapists typically cannot,⁶¹ which contributes to long wait times for families that cannot afford private sector services. This two-tiered system results in reduced availability of services in the publicly funded system.⁶² Families able to afford private therapeutic care (and that live close to and/or can afford to travel) may indeed have greater access to mental health services and supports in a timelier manner when they and their children need them.

Access to mental healthcare services and supports, in person and virtually, is becoming increasingly available through publicly funded programming and employer benefits programs. Previous research by The Conference Board of Canada revealed that many employees are either not aware of, don't understand how to, or simply do not access the mental healthcare services available to them through their employer-sponsored health benefits plans.⁶³ Recommendations have emerged for employer plans to expand coverage plans to reflect a comprehensive full course of care, treatment, and support services.⁶⁴ In a brief to the 2024 Federal Pre-Budget Consultation process, the Canadian Psychological Association emphasized the need for more training positions for psychology and funding to partially cover costs of expanding

⁶¹ Canadian Mental Health Association, Mental Health in the Balance.

⁶² Bartram, "Income-Based Inequities in Access to Mental Health Services in Canada."

⁶³ The Conference Board of Canada, Future-Proofing Investments in Workplace Mental Health.

⁶⁴ Canadian Psychological Association, Employees, Employers & the Evidence.

employer-sponsored health benefit coverage for psychological services.⁶⁵ The most recent 2023 Benefits Benchmarking study by The Conference Board of Canada reported that 54 per cent of Canadian organizations have increased their plan coverage for psychological/mental health services since 2019.⁶⁶ But it's not enough. Currently, the average maximum coverage is \$1,760.58 per year, well below the Canadian Psychological Association's recommendation of \$3,500 to \$4,000 annually.⁶⁷

Moreover, Canada's healthcare system assumes that the needs and issues of transitional age youth change when children turn 18, as they become an emerging adult. Without inclusive and person-centred planning and pre-engagement with families and youth the model and circle of care can be disrupted or broken for those currently receiving care when they turn 18. This disruption negatively impacts continuity and progress along one's health and wellness journey.

Programming and resources can light the way for youth in this period.⁶⁸ However, most young adults find themselves navigating a complex system to access mental healthcare services from public, private, or not-for-profit sectors for the first time after the age of 18. In 2022, most Canadian children and youth (12 to 24 years of age) with mental health needs reported that mental health and substance use services were not easy to access.⁶⁹

Misaligned funding priorities, lack of performance transparency and accountability

The combined extent of prevalence, persistence, and breadth of impact of living with unmet mental health needs is arguably unmatched by most physical health conditions.⁷⁰ Yet, Canada's health funding framework favours spending on physical healthcare over mental healthcare. In 2015, Canada's spending on mental health (public and private sector) was just 7 per cent of Canada's total health spending–well below Canada's G-8 peers (spending on mental health by England's National Health Service was 13 per cent).⁷¹ Canada's target in 2022 was 9 per cent.⁷² Still not enough.

For decades, funding of mental healthcare in Canada has seen a steady downhill trajectory. In Ontario, for instance, funding for care centres offering child and youth mental health services has decreased by almost 50 per cent over the past 25 years.⁷³ Funding levels are based on historical allocations, rather than present needs-based or future-needs estimates. Even in geographic areas where the population of young people has grown considerably or where there are significant unmet mental health needs, funding has not aligned accordingly.⁷⁴

- 68 Canadian Mental Health Association, "Transitioning From Youth to Adult Mental Health Services." 69 Sabad and others, "Filling Data Gaps in Access to Mental Health and Substance Use Services."
- 70 Friedli and Parsonage, Mental Health Promotion.
- 71 Mental Health Commission of Canada, "Strengthening the Case."
- 72 Canadian Institute for Health Information, Health System Resources for Mental Health and Addictions Care in Canada.
- 73 Children's Mental Health Ontario, "Kids Can't Wait."
- 74 Ibid.

⁶⁵ Canadian Psychological Association, "Spotlight."

⁶⁶ Thibault and Marcil, Benefits Benchmarking 2023."

⁶⁷ Ibid.



More concerning, with pre-pandemic federal announcements of \$10 billon in dedicated mental health funding to provinces and territories,⁷⁵ with millions in performance measurement to support outcomes-based accountability, there is a stark lack of transparency on specific funding allocations and whether funding has improved access to services and mental health outcomes for children and youth.⁷⁶

The current health human resources crisis across Canada impacts the entire continuum of care for patients and healthcare professions across all settings. Millions of Canadian families do not have access to a primary healthcare provider (e.g., family practitioner, nurse practitioner, pediatrician), limiting referrals to mental health specialists for diagnosis or treatment. In 2021, 13 per cent of young people aged 12 to 17 (over 2 million) reported they did not have a primary healthcare provider.⁷⁷ In a 2022 pan-Canadian survey, 47 per cent of youth 18 to 29 years of age in Canada reported that they do not have a primary healthcare provider,⁷⁸ illustrating that transitional-age youth have significant vulnerabilities with lack of access to primary care services to support their mental health and healthcare needs or to access specialized services. As well, mental health specialists are also in short supply, further limiting access to necessary services and supports.

75 Statistics Canada, A Common Statement of Principles on Shared Health Priorities.

76 Canadian Mental Health Association, Running on Empty.

77 Statistics Canada, Table 13-10-0096-16.78 OurCare, Survey Data Explorer.

Recommendations

We have identified four key areas of investment that have the potential to make a positive impact. Embedding a cross-ministerial approach between healthcare and mental health, education, child and social services, and substance misuse and addiction to address, lead, and execute this strategy collaboratively will be required.

Create a pan-Canadian child and youth health strategy with mental healthcare as a key pillar

Establish a multi-sectoral National Advisory Council with oversight on establishing a nationwide child and youth mental health accountability framework to:

- promote social and emotional health and wellness for all Canadian children;
- achieve measurable improvements in the provision of and timely access to childhood development programming, with demonstrated reduction in wait times;
- identify and promote-to-scale existing evidence-informed mental healthcare prevention and treatment programming. Solutions with a focus on programs dedicated to the unique needs of vulnerable populations (including people of colour and 2S-LGBTQIA+ individuals), the social determinants of health, therapeutic activities that place an emphasis on social aspects of early childhood development, and parental supports and services that foster attachment and alignment to children's needs are critical;
- disable the transition "pain points" associated with emerging into young adulthood so youth can continue to access a continuity of mental health, primary care, and social services and supports.

The strategy should be designed to respect both federal oversight and provincial and jurisdictional authority over healthcare delivery.

Urgently develop a pan-Canadian child and youth mental healthcare human resources strategy

Invest in child and youth mental health and early childhood development education and professional development programming across clinical and allied care professions. This includes primary healthcare providers, child and adolescent psychiatrists, nurses and psychiatric nurses, and allied professionals outside the healthcare sector (e.g., education, social services, justice system).

This will help to increase Canada's supply of qualified child, youth, and young adult mental healthcare professionals, reduce wait times, and foster a comprehensive, integrated pathway of care. Targeted recruitment and retention strategies for registered professionals, counsellors, and social workers can help to address staffing shortages, strengthen the pediatric and community-based mental health workforce, and develop professionals with expertise in evidence-informed mental health models for children and youth. Addressing the inequities within Canada's two-tier system is critical, both to improving attraction, retention, and availability of staff within the publicly funded and not-for-profit systems of care; and to ensuring a mechanism for equity of access is developed for "private pay" or employer-sponsored solutions. Virtual options and the digital divide must be considered to improve skills and develop practice competency for primary healthcare and other community-based mental healthcare providers. These practitioners are often the only accessible professionals in rural/ remote communities serving families and children with mental health needs.

The Canadian Academy of Health Sciences has proposed priority pathways for the early implementation of leading policies and practices to respond to, plan, and prioritize health human resources.⁷⁹ Investing in employee well-being programs in all settings where services and supports are provided can further support this goal toward a strengthened children's mental healthcare workforce. Using existing standardized patient prioritization tools or patient-reported outcomes measures, or developing new ones where no current measures exist, can effectively support wait-list management within and across prevention and care programming models.⁸⁰

Dedicate investments to outcomes-based programs for children's mental healthcare

Require provinces and territories to have a dedicated budget and public reporting line with defined outcomes for federal funds allocated to mental healthcare for children and youth (i.e., disaggregated from the budget reported for the general population). Only two provinces, British Columbia and Ontario, have established a dedicated budget and reporting mechanism for this purpose.⁸¹



79 Canadian Academy of Health Sciences, "Canada's Health Workforce."

80 Déry and others, "A Systematic Review of Patient Prioritization Tools."

81 Children First Canada, "Pedianomics."

Re-design system funding to strengthen infrastructure supports that connect home, education, community and social services, primary care, hospital, and detention settings where care and services are provided (or need to be). This should include strengthening access to timely universal screening across systems of care. Examples include:

- mental health literacy and professional development programs that assist families, educators including teachers and school principals, as well as early childhood educators, in early detection and support of students potentially at risk—encouraging implementation of effective prevention programs;
- dedicated funding to expand programming and access to effective evidence-informed cognitive-behavioural and interpersonal therapy interventions for prevention and treatment (inclusive of effective medications for anxiety and/or depressive disorders where appropriate);⁸²
- investment in programs and pathways to support rehabilitation and reintegration of youth in detention who have mental health disorders (e.g., establishing case manager roles within the justice system).⁸³

Create a national data strategy that includes child and youth mental health

Accessible, consistent, and reliable data are critical to ensuring effectiveness of policies and programs to support mental healthcare interventions and fostering local support services available in urban, rural, and remote communities.

To capture the status of Canada's mental healthcare for children and youth and assess progress, a national data strategy requires:

- accurate and timely data on prevalence, wait times, costs, outputs, and outcomes at the local, regional, and provincial/territorial level;
- transparency through a national dashboard (using existing data sources)⁸⁴ that enables healthcare professionals and clients/ families to access information on wait times for mental health screening/diagnosis, treatment, and allied services and supports.

Such measures will support the identification and monitoring of ongoing trends and areas requiring improvement and acknowledge excellence.



Appendix A Methodology

The objective of this study was to model the economic cost of anxiety and depressive disorders among children and youth in Canada using a societal perspective, as well as to estimate the potential savings from increasing investments into their mental health.

There are numerous methodologies that can be used to estimate costs, which is why there are differences in estimated costs reported in the literature. For this model, we conducted a cost-of-illness study to conservatively estimate the economic burden of diagnosed anxiety and depression among children and youth, as well as the lifetime economic burden if the current population of children and youth in Canada experiencing anxiety and depression do not receive timely access to mental healthcare services and supports.

To provide a comprehensive estimate, we modelled and distinguished between three types of costs: healthcare costs, community costs, and productivity or indirect costs. Healthcare costs for children and youth included costs for emergency department visits, in-patient hospital stay, general practitioner, pediatrician, psychiatrist, prescription drugs, and counselling. For adults, we were unable to find a breakdown of costs by provider and setting, and instead used grouped costs for healthcare utilization.

For children and youth, community costs included costs for family support, social services, the criminal justice system, and mental health supplements in public schools. For adults, community costs included mental health services usage in the justice system and community services.

Indirect costs are costs that are absorbed by the economy because of lost income resulting from a mental health disorder. For children and youth, this category surrounded the cost of caregiving provided by parents. For adults, indirect costs were higher given their contribution to the economy through labour, and using a human capital approach, included costs due to absenteeism and presenteeism.

Along with costs, for each measure, we also included in the model the associated proportion of people with depression and/or anxiety that contribute to that expenditure. For instance, the cost of using healthcare services among children and youth with mental health disorders was \$8,559. Given that 59 per cent of children and youth with disorders use general health services, we then estimate that the cost for general healthcare for diagnosed children and youth would be \$1,469,266,323.

A literature search and review of healthcare and economic databases (Pubmed, EconLit), grey literature (Google), and government websites (e.g., Canadian Institute for Health Information, Statistics Canada) was conducted to determine values for the economic model. Canadian data on prevalence, population structure, health and social service utilization, productivity, and costs were extracted from relevant sources. If Canadian data were not available, the international literature was reviewed. Model inputs selected and input into the final model, including their sources, are shown in Appendix B. The estimates across the years were inflation and time adjusted using the 2022 consumer price index.

The model provided several estimates based on model assumptions and constraints. First, we estimated the economic cost of diagnosed anxiety and depression in childhood and adolescence, assuming an average prevalence rate of 3.5 per cent for anxiety and mood disorders (inclusive of depression). Understanding that this prevalence rate is not accurate given that it is from 2019 when the last Canadian Health Survey on Children and Youth was conducted (data collection for the 2023 survey ongoing), we then estimated the recent prevalence to be 9 per cent using the reported risk ratio of 2.54 for depression post-COVID 19. We then estimated costs for this upper-bound prevalence rate. Next, we estimated the lifetime costs with the assumption that mental health disorders persist into adulthood after an estimated 80 per cent of the population do not receive appropriate treatment. (See Exhibit 1.)

Exhibit 1

Childhood and adolescence		Adulthood		
Healthcare costs	 Hospitalizations Emergency department use Healthcare provider visits 	Direct, healthcare	Hospitalizations Emergency department use Healthcare provider visits	
Public or private costs	Treatment (prescription drugs and therapy)	Public or private costs	Treatment (prescription drugs and therapy)	
Community costs	Community and social services Justice system Mental health services in	Community costs	Community and social services Justice system	
	education system	Indirect costs	Absenteeism and presentism	
Indirect costs	Caregiving		Income support	

Source: The Conference Board of Canada.

Appendix B Model inputs

Table 1

Model inputs

Model Input	Value in 2022 (C\$; percentage of population)	Source
Epidemiological and population level		
Population of children and youth	6,314,449	Statistics Canada, Table 17-10-0005-01
Diagnosed mood disorder	2.1%	Statistics Canada, 2020
Diagnosed anxiety disorder	5%	lbid.
Relative risk for depression post-COVID compared with pre-COVID	2.54%	Wang and others, 2022
Treatment rate	20%	Mental Health Commission of Canada, 2017
Economic costs – children and adolescents		
Healthcare	\$10,436	Jacobs and Lesage, 2018
Prescription drugs	\$250	Alberta College of Family Physicians, 2016
Counselling	\$1,127	Lamsal and others, 2018
Family support for children with disabilities	\$14,638	Jacobs and Lesage, 2018
Social services	\$34,908	lbid.
Inpatient forensic services	\$59,132	lbid.
Criminal justice community	\$93,321	lbid.
Judicial measures-Alberta health services (police data not available)	\$8,263	lbid.
Public school mental health supplements	\$9,464	lbid.
Caregiving cost	\$847	Dass and Laporte, 2018
Proportion of children and youth		
With disorders that use general health services	0.59%	Georgiades and others, 2019
With disorders that use mental health services	0.45%	lbid.
With disorders that take prescription drugs	0.5%	Servais and others, 2021
Do counselling	0.1%	Zablotsky and Terlizzi, 2020
Receive family support	0.003%	Jacobs and Lesage, 2019
Use social services	0.001%	Ibid.
Use forensic services	0.0002%	lbid

(continued)



Table 1 (cont'd)

Model inputs

Model Input	Value in 2022 (C\$; percentage of population)	Source
Use criminal system	0.001%	lbid.
Use alternative judicial measures	0.0001%	lbid.
Use school mental health supports	0.02%	Ibid.
Have caregiving costs	0.25%	Children's Mental Health Ontario, 2017
Economic costs-adults		
Healthcare	\$10,889	Tanner and others, 2020
Prescription cost	\$1,820	Ibid.
Counselling	\$1,127	Lamsal and others, 2018
Mental health services in justice system	\$2,847	Jacobs and others, 2016
Community and social services	\$7,047	Mental Health Commission of Canada, 2017
Productivity loss in those working full time	\$62,508	Sutherland and Stonebridge, 2016
Productivity loss in those working part time	\$41,372	Ibid.
Income support	\$5,227.03	Jacobs and others, 2016
Proportion of adults		
Probability of using hospitals	0.68%	Lazare and others, 2022
Probability of seeing providers	0.87%	lbid.
Probability of taking prescriptions	0.48%	O'Donnell and others, 2017
Probability of counselling	0.069%	Ibid.
Probability of using justice system	0.0007%	Statistics Canada, Table 35-10-0154-01
Probability working full time but with reduced functioning	0.52%	Sutherland and Stonebridge, 2016
Probability working part time with reduced functioning	0.26%	lbid.
Proportion claiming mental health disability	0.087%	Statistics Canada, 2022

Source: The Conference Board of Canada.



Appendix C Pooled prevalence of childhood mental disorders

Table 2

Pooled prevalence of childhood mental disorders

Disorder	Age (years)	Number of studies	Sample size	Prevalence (%) (95% CI)
Any anxiety disorder	4–18	12	53 663	5.2 (3.2 to 8.2)
Specific phobia	4–18	7	37 170	3.4 (1.9 to 5.9)
Separation anxiety disorder	4–18	10	46 935	1.6 (1.0 to 2.6)
Social anxiety disorder	4–18	10	46 935	1.2 (0.6 to 2.3)
Generalized anxiety disorder	4–18	11	49 977	0.9 (0.4 to 1.7)
Panic disorder	4–18	9	38 881	0.1 (0.1 to 0.3)
Agoraphobia	4–18	5	26 691	0.1 (0.04 to 0.4)
Attention-deficit/hyperactivity disorder	4–18	14	61 545	3.7 (2.3 to 5.7)
Oppositional defiant disorder	4–18	10	47 299	3.3 (2.4 to 4.6)
Any substance use disorder	12–18	4	15 788	2.3 (2.1 to 2.6)
Alcohol use disorder	12–18	3	9114	1.2 (1.0 to 1.4)
Cannabis use disorder	12–18	2	2631	0.6 (0.4 to 1.0)
Any depressive disorder	4–18	7	31 737	1.8 (0.8 to 3.8)
Major depressive disorder	4–18	11	45 696	1.3 (0.6 to 2.9)
Dysthymia	4–18	4	8142	0.2 (0.1 to 0.7)
Conduct disorder	4–18	13	59 960	1.3 (0.8 to 2.3)
uutism spectrum disorder	4–18	4	21 629	0.4 (0.2 to 0.8)
Obsessive-compulsive disorder	4–18	7	33 769	0.3 (0.1 to 0.6)
Bipolar disorder	12–18	2	8128	0.3 (0.1 to 1.1)
ating disorders	12–18	5	21 194	0.2 (0.1 to 0.5)
Post-traumatic stress disorder	4–18	8	35 839	0.1 (0.04 to 0.4)
Schizophrenia	12–18	2	5500	0.1 (0.1 to 0.3)
Any disorder	4–18	14	61 545	12.7 (10.1 to 15.9)

Notes:

Age - Earliest age in the ranges provided reflects when disorders typically emerge. (Kessler and others, "Lifetime Prevalence and Age-of-Onset Distributions of Mental Disorders.")

Any anxiety disorder-For any anxiety disorder, six studies included post-traumatic stress and/or obsessive-compulsive disorders.

Any substance use disorder-For any substance use disorder, two studies included alcohol, cannabis, nicotine, and other substances; one included alcohol and drugs; and one did not specify.

Any depressive disorder – For any depressive disorder, four studies included major depressive disorder (MDD) and dysthymia; one included MDD and depression not specified; one included MDD, dysthymia and bipolar; and one did not specify.

Any disorder – Overall estimate for children with any disorder is less than the sum of estimates for the specific disorders because 26.5 per cent of children had two or more disorders concurrently. Source: Recreated from Barican and others, "Prevalence of Childhood Mental Disorders in High-Income Countries."

Appendix D Bibliography

Alberta College of Family Physicians. *Price Comparison* of Commonly Prescribed Pharmaceuticals in Alberta 2016. Edmonton: Alberta College of Family Physicians, 2026. Accessed September 6, 2023. <u>https://www.acfp.ca/</u> wp-content/uploads/2016/03/ACFPPricingDoc2016.pdf.

Bachmann, Silke. "Epidemiology of Suicide and the Psychiatric Perspective." *International Journal of Environmental Research and Public Health* 15, no. 7 (July 6, 2018): 1425. https://doi.org/10.3390/ijerph15071425.

Barican, Jenny Lou, Donna Yung, Christine Schwartz, Yufei Zheng, Katholiki Georgiades, and Charlotte Waddell. "Prevalence of Childhood Mental Disorders in High-Income Countries: A Systematic Review and Meta-Analysis to Inform Policymaking." *Evidence-Based Mental Health* 25, no. 1 (February 2022): 36–44.

Bartram, M. "Income-Based Inequities in Access to Mental Health Services in Canada." *Canadian Journal of Public Health* 110, no. 4 (August 2019): 395–403. <u>https://doi.org/10.17269/s41997-019-00204-5</u>.

Brooks, Rob, Charlotte Lambert, Laura Coulthard, Lindsay Pennington, and Niina Kolehmainen. "Social Participation to Support Good Mental Health in Neurodisability." *Child Care, Health and Development* 47, no. 5 (September 2021): 675– 84. <u>https://doi.org/10.1111/cch.12876</u>.

Canadian Academy of Health Sciences. *Canada's Health Workforce: Pathways Forward.* Ottawa: CAHS, March 2023. Accessed November 25, 2023. <u>CAHS-Health-Workforce-</u> <u>Pathways-Forward-EN_Final_Apr-4.pdf (cahs-acss.ca).</u>

Canadian Institute for Health Information. *Health System Resources for Mental Health and Addictions Care in Canada.* Ottawa: CIHI, July 2019. Accessed November 27, 2023. https://www.cihi.ca/en/mental-health-of-childrenand-youth-in-canada. Canadian Mental Health Association. *Mental Health in the Balance: Ending the Health Care Disparity.* Toronto: CMHA, September 2018. Accessed November 23, 2023. <u>https://cmha.ca/wp-content/uploads/2021/07/CMHA-Parity-Paper-Full-Report-EN.pdf</u>.

-. Running on Empty: How Community Mental Health Organizations Have Fared on the Frontlines of COVID-19. Toronto: CMHA, March 2022. Accessed November 23, 2023. <u>https://cmha.ca/wp-content/uploads/2022/02/</u> <u>Running-on-empty-Full-Paper-Report-EN-Final.pdf</u>.

-. "Justice and Mental Health." Accessed July 18, 2023. <u>https://ontario.cmha.ca/provincial-policy/criminal-justice/</u>.

-. "Transitioning From Youth to Adult Mental Health Services." Accessed November 2, 2023. <u>https://ontario.</u> <u>cmha.ca/documents/transitioning-from-youth-to-adultmental-health-services/</u>.

Canadian Psychological Association. *Employees, Employers & the Evidence... The Case for Expanding Coverage for Psychological Services in Canada.* Ottawa: CPA, May 2023. Accessed November 10, 2023. <u>https://cpa.ca/docs/File/Advocacy/Employees%20</u> <u>Employers%20and%20the%20Evidence%202023%20</u> <u>EN%20Final.pdf.</u>

-. "Spotlight: Federal Government 2024 Pre-Budget Consultations." Accessed July 18, 2023. <u>https://cpa.ca/</u> federal-government-2024-pre-budget-consultationsaugust-2023/.

Children First Canada. "Pedianomics: The Social Return on Investment in Improving the Health and Wellbeing of Children and Adolescents." Accessed November 25, 2023. https://childrenfirstcanada.org/reports/pedianomics/. Children's Healthcare Canada. A Child & Youth Mental Health Leadership Summit Series. Ottawa: Children's Healthcare Canada, June 17, 2022. Accessed November 23, 2023. <u>https://www.childrenshealthcare</u> <u>canada.ca/en/Pop-Up-Events/CYMH-Leadership-Summit-</u> Series-2022/JUNE-Consultation-Event-Summary-Report-<u>CYMH-Leadership-Summit-(1).pdf</u>.

Children's Mental Health Ontario. "Kids Can't Wait." 2027. Accessed July 18, 2023. <u>https://www.family.cmho.org/kidscantwait/</u>.

Conference Board of Canada, The. *Future-Proofing Investments in Workplace Mental Health.* Ottawa: The Conference Board of Canada, November 10, 2022. Accessed November 25, 2023. <u>https://www.conference board.ca/wp-content/uploads/2022/10/11866_impact-paper_future-proofing_2022_en.pdf.</u>

Copeland, William E., Lilly Shanahan, and E. Jane Costello. "Childhood and Adolescent Psychiatric Disorders as Predictors of Young Adult Disorders." *Archives of General Psychiatry* 66, no. 7 (2009) 764–72. <u>https://doi.org/</u> 10.1001/archgenpsychiatry.2009.85.

Cotter, Adam. "Experiences of Discrimination Among the Black and Indigenous Populations in Canada, 2019." Canadian Centre for Justice and Community Safety Statistics, Statistics Canada, February 16, 2022. Accessed November 23, 2023. <u>https://www150.statcan.gc.ca/n1/ pub/85-002-x/2022001/article/00002-eng.htm</u>.

Czeisler, Mark E., Rashon I. Lane, Emiko Petrosky, Joshua F. Wiley, Aleta Christensen, Rashid Njai, Matthew D. Weaver, Rebecca Robbins, Elise R. Facer-Childs, Laura Barger and others. "Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic – United States, June 24–30, 2020." *Morbidity and Mortality Weekly Report* 69, no. 32 (August 14, 2020): 1049–57. <u>https://doi.org/10.15585/mmwr.mm6932a1</u>.



Dass, Adrian, and Audrey Laporte. *The Productivity Costs of Parents in Ontario With Children Who Experience Issues Related to Anxiety.* Edmonton: Canadian Centre for Health Economics, November 26, 2018. Accessed September 6, 2023. <u>https://cmho.org/wp-content/uploads/Child-Mental-Health-Report-Nov-26-2018_FINAL.pdf.</u>

Department of Justice Canada. Youth Views on Collaborating to Support Individuals With Mental Health and Addiction Issues in the Criminal Justice System. Research at a Glance, Ottawa: Department of Justice Canada, 2019. Accessed November 25, 2023. <u>https://justice.canada.ca/ eng/rp-pr/jr/rg-rco/2019/nov04.pdf</u>.

Déry, Julien, Angel Ruiz, François Routhier, Valérie Bélanger, André Côté, Daoud Ait-Kadi, Marie-Pierre Gagnon, Simon Deslauriers, Ana Tereza Lopez Pecora, Eduardo Redondo and others. "A Systematic Review of Patient Prioritization Tools in Non-Emergency Health Services." *Systematic Reviews* 9, no. 1 (October 6, 2020): 227. <u>https://doi.org/</u> 10.1186/s13643-020-01482-8.

Espinet, Stacey D., Gemma Graziosi, Maggie E. Toplak, Jacqueline Hesson, and Priyanka Minhas. "A Review of Canadian Diagnosed ADHD Prevalence and Incidence Estimates Published in the Past Decade." *Brain Sciences* 12, no. 8 (August 8, 2022): 1051. <u>https://doi. org/10.3390/brainsci12081051</u>.

Friedli, Lynne, and Michael Parsonage. *Mental Health Promotion: Building an Economic Case.* Belfast: Northern Ireland Association for Mental Health, 2007.

Fusar-Puli, Paolo. "Integrated Mental Health Services for the Developmental Period (0 to 25 Years): A Critical Review of the Evidence." *Frontiers in Psychiatry* 10 (June 7, 2019): 355. <u>https://doi.org/10.3389/fpsyt.2019.00355</u>.

Gajaria., Jaswant Guzder, and Raj Rasasingham. "What's Race Got to Do With It? A Proposed Framework to Address Racism's Impacts on Child and Adolescent Mental Health in Canada." *Journal of the Canadian Academy of Child and Adolescent Psychiatry* 30, no. 2 (May 1, 2021): 131–37. Georgiades, Katholiki, Laura Duncan, Li Wang, Jinette Comeau, and Michael Boyle. "Six-Month Prevalence of Mental Disorders and Service Contacts Among Children and Youth in: Evidence From the 2014 Ontario Child Health Study." *The Canadian Journal of Psychiatry*, 64, no. 4 (April 2019): 246–55. Accessed November 26, 2023. <u>https://doi. org/10.1177/0706743719830024</u>.

Government of Canada. Canadian Chronic Disease Surveillance System. Last modified August 28, 2023. <u>https://health-infobase.canada.ca/ccdss/Index</u>. Accessed November 28, 2023.

Hankerson, Sidney H., Nathalie Moise, Diane Wilson, Bernadine Y. Waller, Kimberly T. Arnold, Cristiane Duarte, Claudia Lugo-Candelas, Myrna M. Weissman, Milton Wainberg, Rachel Yehuda and others. "The Intergenerational Impact of Structural Racism and Cumulative Trauma on Depression." *American Journal of Psychiatry* 179, no. 6 (June 2022): 434–40. https://doi.org/ 10.1176/appi.ajp.21101000.

Jacobs, Philip and Alain Lesage. "The Public Cost of Mental Health- and Addiction-Related Services for Youth (Ages 12–17) in Alberta." *The Canadian Journal of Psychiatry* 64, no. 5 (August 29, 2018): 323–28. <u>https://doi.org/10.1177/</u> 0706743718795676.

Jacobs, Philip, Carolyn Dewa, Alain Lesage, Helen-Maria Vasiliadis, Carissa Escober-Doran, Gillian Mulvale, and Rita Yim. Services in Canada. A Report to the Mental Health Commission of Canada. Edmonton: Institute of Health Economics, 2010.

Jacobs, Philip, Jessica Moffatt, Carolyn Dewa, Thanh Nguyen, Tina Zhang, and Alain Lesage. "Mental Health Services Costs Within the Alberta Criminal Justice System. *International Journal of Law and Psychiatry* 102, no. 8 (July 2016): 102–08. https://doi.org/10.1016/j.jijp.2016.04.008.

Jaffray, Brianna. "Experiences of Violent Victimization and Unwanted Sexual Behaviours Among Gay, Lesbian, Bisexual and Other Sexual Minority People, and the Transgender Population, in Canada, 2018." Canadian Centre for Justice and Community Safety Statistics, September 9, 2020. Accessed November 23, 2023. <u>https://www150.statcan.</u> gc.ca/n1/pub/85-002-x/2020001/article/00009-eng.htm. Jo, Changik. "Cost-of-Illness Studies: Concepts, Scopes, and Methods." *Clinical and Molecular Hepatology* 20, no. 4 (December 2014): 327–37. <u>https://doi.org/10.3350/</u> cmh.2014.20.4.327.

Kalin, N. H. "Anxiety, Depression, and Suicide in Youth." American Journal of Psychiatry 178, no. 4 (April 1, 2021): 275–79. <u>https://doi.org/10.1176/appi.ajp.2020.21020186</u>.

Kessler R. C., M. Angermeyer, J. C. Anthony, R. DE Graaf, K. Demyttenaere, I. Gasquet, G. DE Girolamo, S. Gluzman, O. Gureje, J. M. Haro and others. "Lifetime Prevalence and Age-of-Onset Distributions of Mental Disorders in the World Health Organization's World Mental Health Survey Initiative." *World Psychiatry* 6, no. 3 (October 2007):168–76. Accessed November 23, 2023. <u>https://www.ncbi.nlm.nih.</u> gov/pmc/articles/PMC2174588/.

Kessler, Ronald C., G. Paul Amminger, Sergio Aguilar-Gaxiola, Jordi Alonso, Sing Lee, and T. Bedirhan Ustün. "Age of Onset of Mental Disorders: A Review of Recent Literature." *Current Opinion in Psychiatry* 20, no. 4 (July 2007): 359–64. <u>https://doi.org/10.1097/YCO.0b013e32816ebc8c</u>.

Klaufus, Leonie, Eva Verlinden, Marcel van der Wal, Pim Cuijpers, Mai Chinapaw, and Filip Smit. "Adolescent Anxiety and Depression: Burden of Disease Study in 53,894 Secondary School Pupils in the Netherlands." *BMC Psychiatry* 22, no. 225 (March 30, 2022): 225. <u>https://doi.org/10.1186/s12888-022-03868-5</u>.

Krass, Polina, Evan Dalton, Stephanie K. Doupnik, and Jeremy Esposito. "US Pediatric Emergency Department Visits for Mental Health Conditions During the COVID-19 Pandemic." *JAMA Network Open* 4, no. 4 (April 30, 2021): e218533.

Lamsal, Ramesh, Carol A. Stalker, Cheryl-Anne Cait, Manuel Riemer, and Susan Horton. "Cost-Effectiveness Analysis of Single-Session Walk-In Counselling." *Journal of Mental Health* 27, no. 6 (December 2018): 560–66. <u>https://doi.org/10.1080/09638237.2017.1340619</u>.



Lazare, Kimberly, Sumeet Kalia, Babek Aliarzadeh, Steven Bernard, Rahim Moineddin, David Eisen, Michelle Greiver, David Kaplan, David Koczerginski, Maria Muraca and others. "Health System Use Among Patients With Mental Health Conditions in a Community Based Sample in Toronto, Canada: A Retrospective Cohort Study." *PLoS ONE* 17, no. 5 (May 10, 2022): e0266377. <u>https://doi.org/</u> 10.1371/journal.pone.0266377.

Lombardo, Patrick, Wayne Jones, Liangliang Wang, Xin Shen, and Elliot M. Goldner. "The Fundamental Association Between Mental Health and Life Satisfaction." *BMC Public Health* 18 (March 12, 2018): 342. Accessed November 25, 2023. <u>https://bmcpublichealth.biomedcentral.com/</u> <u>articles/10.1186/s12889-018-5235-x</u>.

Marwaha, Steven, and Sonia Johnson. "Schizophrenia and Employment: A Review." *Social Psychiatry and Psychiatric Epidemiology* 39 (2004): 337–49.

Mental Health Commission of Canada. "Children and Youth." 2017. Accessed November 23, 2023. <u>https://mentalhealthcommission.ca/what-we-do/children-and-youth/</u>.

-. "Strengthening the Case for Investing in Canada's Mental Health System." n.d. Accessed November 23, 2023. <u>https://mentalhealthcommission.ca/resource/</u> <u>strengthening-the-case-for-investing-in-canadas-mental-</u> health-system/.

Moroz, Nicholas, Isabella Moroz, and Monika Slovinec D'Angelo. "Mental Health Services in Canada: Barriers and Cost-Effective Solutions to Increase Access." *Healthcare Management Forum* 33, no. 6 (July 2020) 282–87. <u>https://doi.org/10.1177/0840470420933911</u>.

Murray, Jonah Kynan, and Sarah Knudson. "Mental Health Treatment and Access for Emerging Adults in Canada: A Systematic Review." *Frontiers in Public Health* 11 (July 10, 2023): 1–12. <u>https://doi.org/10.3389/fpubh.2023.1088999</u>. National Institute of Mental Health. "Substance Use and Co-Occurring Mental Disorders." n.d. Accessed July 19, 2023. <u>https://www.nimh.nih.gov/health/topics/substanceuse-and-mental-health</u>.

O'Donnell, Siobhan, Maria Syoufi, Wayne Jones, Kathryn Bennett, and Louise Pelletier. Use of Medication and Psychological Counselling Among Canadians With Mood and/or Anxiety Disorders. *Health Promotion and Chronic Disease Prevention in Canada: Research, Policy and Practice* 37, no. 5 (May 2017): 160–71. <u>https://doi.org/</u> 10.24095/hpcdp.37.5.04.

OurCare. Survey Data Explorer. n.d. Accessed November 23, 2023. <u>https://data.ourcare.ca/all-questions</u>.

Pilling, Stephen, Peter Fonagy, Elizabeth Allison, Phoebe Barnett, Chloe Campbell, Matthew Constantinou, Tessa Gardner, Nicolas Lorenzini, Hannah Matthews, Alana Ryan and others. "Long-Term Outcomes of Psychological Interventions on Children and Young People's Mental Health: A Systematic Review and Meta-Analysis." *PLoS One* 15, no. 11 (November 16, 2020): e0236525. <u>https://doi. org/ 10.1371/journal.pone.0236525</u>.

Public Health Agency of Canada. "Mental Health and Problematic Social Media Use in Canadian Adolescents." January 4, 2022. Accessed November 23, 2023. <u>https:// www.canada.ca/en/public-health/services/publications/</u> <u>science-research-data/mental-health-problematic-social-</u> <u>media-use-canadian-adolescents.html</u>.

Racine, Nicole, Brae Anne McArthur, Jessica E. Cooke, Rachel Eirich, Jenney Zhu, and Sheri Madigan. "Global Prevalence of Depressive and Anxiety Symptoms in Children and Adolescents During COVID-19: A Meta-Analysis." *JAMA Pediatrics* 175, no. 11 (November 1, 2021): 1142–50. https://doi.org/10.1001/jamapediatrics.2021.2482.

Rode, Joseph, Marne L. Arthaud-Day, Christine H. Mooney, Janet P. Near, Timothy T. Baldwin, William H. Bommer, and Robert S. Rubin. "Life Satisfaction and Student Performance." *Academy of Management Learning & Education* 4, no. 4 (December 2005): 421–33. Accessed November 23, 2023. <u>http://www.jstor.org/stable/40214344</u>. Ross, Stephen, and Eric Peselow. "Co-Occurring Psychotic and Addictive Disorders: Neurobiology and Diagnosis." *Clinical Neuropharmacology* 35, no. 5 (September 2012): 235–43. https://doi.org/10.1097/WNF.0b013e318261e193.

Sabad, Allison, Sara Grimwood, Andrea Foebel, and Mélanie Josée Davidson. "Filling Data Gaps in Access to Mental Health and Substance Use Services." *Healthcare Quarterly* 26, no. 1 (April 2023): 10–13. <u>https://doi.org/</u> 10.12927/hcg.2023.27058.

Scaramuzza, Andrea, Francesco Tagliaferri, Lorenza Bonetti, Martina Soliani, Francesco Morotti, Simonetta Bellone, Claudio Cavalli, and Ivana Rabbone. "Changing Admission Patterns in Paediatric Emergency Departments During the COVID-19 Pandemic." *Archives of Disease in Childhood* 105, no. 7 (July 1, 2020): 704–06. <u>https://doi.org/10.1136/archdischild-2020-319397</u>.

Schwartz, C., D. Yung, J. Barican, and C. Waddell. *Preventing and Treating Childhood Mental Disorders: Effective Interventions.* Vancouver: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University, October 2020. Accessed November 23, 2023. <u>https://</u> <u>childhealthpolicy.ca/wp-content/uploads/2022/02/CHPC-</u> <u>Effective-Interventions-Report-2022.02.15-REV.pdf.</u>

Schwartz, C., J. Barican, D. Yung, and C. Waddell. *COVID-19* and *Children's Mental Health: Implications for Pandemic Recovery.* Vancouver: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University, April 2023. Accessed November 23, 2023. <u>https://child</u> <u>healthpolicy.ca/wp-content/uploads/2023/04/SFU-CHPC-RCY-Report-on-COVID-and-childrens-mentalhealth-2023.04.26-hotlinked.pdf</u>.

Servais, Jennifer, Pamela Ramage-Morin, Julia Gal, and Craig Hales. "Prescription Medication Use Among Canadian Children and Youth, 2012 to 2017." *Health Reports* (March 17, 2021). <u>https://doi.org/10.25318/82-003x202100300001-eng</u>.



Smetanin, Paul, David Stiff, Carla Briante, Carol Adair, Sheeba Ahmad, and Minhal Khan. *The Life and Economic Impact of Major Mental Illnesses in Canada*. Toronto: RiskAnalytica, on behalf of the Mental Health Commission of Canada, March 15, 2011. Accessed November 23, 2023. https://www.researchgate.net/profile/Paul-Smetanin/ publication/259911124_The_Life_and_Economic_Impact_ of_Major_Mental_Illnesses_in_Canada_Report_ commissioned_by_the_Mental_Health_Commission_of_ Canada_2011/links/02e7e52e7f0f55e97c000000/ The-Life-and-Economic-Impact-of-Major-Mental-Illnessesin-Canada-Report-commissioned-by-the-Mental-Health-Commission-of-Canada-2011.pdf.

Spady, D. W., D. P. Schopflocher, L. W. Svenson, and A. H. Thompson. "Prevalence of Mental Disorders in Children Living in Alberta, Canada, as Determined From Physician Billing Data." *Archives of Pediatric and Adolescent Medicine* 155, no. 10 (2001): 1153–59. <u>https://doi.org/10.1001/</u> archpedi.155.10.1153.

Statistics Canada. "A Common Statement of Principles on Shared Health Priorities." Last modified August 14, 2018. Accessed November 25, 2023. <u>https://www.canada.ca/ content/dam/hc-sc/documents/corporate/</u> <u>transparency_229055456/health-agreements/principlesshared-health-priorities.pdf.</u>

 - "Canadian Health Survey on Children and Youth, 2019." July 23, 2020. Accessed November 24, 2023.
 <u>https://www150.statcan.gc.ca/n1/daily-quotidien/200723/</u> dq200723a-eng.htm.

-. "Portrait of Youth in Canada: Data Report-Chapter 1: Health of Youth in Canada." February 1, 2021. Accessed November 23, 2023. <u>https://www150.statcan.gc.ca/n1/</u> pub/42-28-0001/2021001/article/00001-eng.htm.

-. "Mental Health-Related Disability Rises Among Employed Canadians During Pandemic, 2021." March 4, 2022. Accessed September 6, 2023. <u>https://www150.</u> <u>statcan.gc.ca/n1/daily-quotidien/220304/dq220304beng.htm</u>. -. Table 13-10-0096-16. Has a Regular Healthcare Provider, by Age Group. November 6, 2023. <u>HTTPS://DOI.</u> <u>ORG/ https://doi.org/10.25318/1310009601-eng</u>.

-. Table 17-10-0005-01. Population Estimates on July 1st, by Age and Sex. Accessed September 6, 2023. <u>https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=</u> <u>1710000501.</u>

-. Table 35-10-0154-01. Average Counts of Adults in Provincial and Territorial Correctional Programs. February 23, 2023. Accessed November 23, 2023. <u>https://www150.</u> <u>statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510015401</u>.

Sutherland, Greg, and Carole Stonebridge. *Healthy Brains at Work: Estimating the Impact of Workplace Mental Health Benefits and Programs*. Ottawa: The Conference Board of Canada, 2016.

Tanner, Julie-Anne, Jennifer Hensel, Paige Davies, Lisa C. Brown, Bryan Dechairo, and Benoit Mulsant. "Economic Burden of Depression and Associated Resource Use in Manitoba, Canada." *The Canadian Journal of Psychiatry* 65, no. 5 (May 2020). <u>https://doi.org/10.1177/0706743719895342</u>.

Theberath, Monique, David Bauer, Weizhi Chen, Manisha Salinas, Arya B. Mohabbat, Juan Yang, Tony Y. Chon, Brent A. Bauer, and Dietlind L. Wahner-Roedler. "Effects of COVID-19 Pandemic on Mental Health of Children and Adolescents: A Systematic Review of Survey Studies." SAGE Open Medicine (March 30, 2022): 10. <u>https://doi.org/</u> 10.1177/20503121221086712.

Thibault, Tabatha, and Liz Marcil. *Benefits Benchmarking* 2023: Supporting Employee Mental Health and Wellness. Ottawa: The Conference Board of Canada, 2023.

Tombeau Cost, Katherine, Jennifer Crosbie, Evdokia Anagnostou, Catherine S. Birken, Alice Charach, Suneeta Monga, Elizabeth Kelley, Rob Nicholson, Jonathon L. Maguire, Christie L. Burton, and others. "Mostly Worse, Occasionally Better: Impact of COVID-19 Pandemic on the Mental Health of Canadian Children and Adolescents." *European Child and Adolescent Psychiatry* 31, no. 4 (April 1, 2022): 671–84. <u>https://doi.org/10.1007/s00787-021-01744-3</u>. Vergunst, Francis, Melissa Commisso, Marie-Claude Geoffroy, Caroline Temcheff, Martine Poirier, Jungwee Park, Frank Vitaro, Richard Tremblay, Sylvana Côté, and Massimilliano Orri. "Association of Childhood Externalizing, Internalizing, and Comorbid Symptoms With Long-Term Economic and Social Outcomes." *JAMA Network Open* 6, no. 1 (January 3, 2023): e2249568. <u>https://doi.org/10.1001/</u> jamanetworkopen.2022.49568.

Waddell, Charlotte, Kimberley McEwen, Cody Shephard, David Offord, and Josephine Hua. "A Public Health Strategy to Improve the Mental Health of Canadian Children." *The Canadian Journal of Psychiatry* 50, no. 4 (March 2005) 226–33. https://doi.org/10.1177/070674370505000406.

Waddell, Charlotte, Nicole Catherine, Emanuel Krebs, Bohdan Nosyk, Ange Cullen, Katie Hjertaas, Rosemary Lever, Dan MacKenzie, Donna Yung, Jen Barican, and others. *Public Data Sources for Monitoring Children's Mental Health: What We Have and What We Still Need in British Columbia.* Vancouver: Children's Health Policy Centre, Faculty of Health Sciences, Simon Fraser University, December 2020. Accessed November 23, 2023. <u>https://childhealthpolicy.ca/wp-content/uploads/2020/12/</u> <u>Waddell-Datasets-2020.12.08.pdf</u>.

Wang, Sifan, Lin Chen, Hailiang Ran, Yusan Che, Die Fang, Hao Sun, Junwei Peng, Xuemeng Liang, and Yuanyuan Xiao. "Depression and Anxiety Among Children and Adolescents Pre and Post COVID-19: A Comparative Meta-Analysis." *Frontiers in Psychiatry* 13 (August 3, 2022). https://doi.org/10.3389/fpsyt.2022.917552.

World Health Organization. "World Mental Health Report: Transforming Mental Health for All." Geneva: WHO, 2022. ISBN: 9789240049338.

-. "ICD-11 for Mortality and Morbidity Statistics. 06 Mental, behavioural or neurodevelopmental disorders." Accessed December 4, 2023. <u>https://icd.who.int/browse11/l-m/en#/</u> <u>http://id.who.int/icd/entity/334423054</u>.

Zablotsky, Benjamin, and Emily Terlizzi. "Mental Health Treatment Among Children Aged 5–17 Years: United States, 2019." *NCHS Data Brief* 381 (September 2020): 1–8.



Acknowledgements

This research series was made possible through the financial support of Children's Healthcare Canada and the contributions to Children's Healthcare Canada from the following organizations:

- One Child Every Child, Alberta Children's Hospital Research Institute and Alberta
- Children's Hospital Foundation
- Children's Hospital of Eastern Ontario (CHEO)
- McMaster Children's Hospital Foundation

The following members of The Conference Board of Canada's Health and Economics Research team contributed to this work: Dilys Leman, Senior Research Associate; Sophiya Garasia, Senior Economist; Christopher Viel, Research Associate; and Chad Leaver, Director.

We extend our sincere gratitude to members of the Research Advisory Board who supported and informed this program of research:

- Sharlynne Burke, Provincial Executive Director, Child, Youth and Young Adult Mental Health and Substance and Specialty Medical Services, BC Children's Hospital and Women's Health Centre
- Michael Cole, Senior Vice President, Kids Help Phone
- Dr. Richard Keijzer, Chief of Surgery, Winnipeg Children's Hospital
- Rachel Martens, Research Engagement Strategist, CanChild Centre for Childhood
- Deborah Marshall, Professor, Cumming School of Medicine, University of Calgary
- Tatum Wilson, CEO, Children's Mental Health Ontario
- Jennifer Zwicker, Director of Health Policy, School of Public Policy, University of Calgary

We extend our gratitude to the individuals who participated in leadership discussions and contributed valuable feedback:

- Susanne Benseler, Director, Alberta Children's Hospital Research Institute
- Christina Bartha, Senior Executive Director, Student Mental Health Systems, Policy and Strategy, University of Toronto
- Ann Harding, Director, Child, Youth and Family Initiatives Provincial Addiction and Mental Health, Alberta Health Services
- Julia E. Hanigsberg, President and CEO, Holland Bloorview Kids Rehabilitation Hospital
- Roberto Sassi, Associate Professor Department of Psychiatry, Division of Child and Adolescent Psychiatry Head, Division of Child and Adolescent Psychiatry, University of British Columbia, and Investigator and Psychiatrist in Chief, BC Children's Hospital
- Sonja Sinclair, Director, Outpatient Psychiatry and Specialized Medical Programs, BC Children's Hospital
- Bruce Squires, President, McMaster Children's Hospital

And to the Children's Healthcare Canada team:

- Emily Gruenwoldt, President and CEO
- Lisa Stromquist, Associate Director, Strategy and Engagement
- Niya Chari, Senior Advisor, Research and Policy
- Paula Robeson, Senior Advisor, Knowledge Mobilization

Nurturing Minds for Secure Futures: Timely Access to Mental Healthcare for Children and Youth in Canada The Conference Board of Canada

To cite this research: Conference Board of Canada, The. *Nurturing Minds* for Secure Futures: Timely Access to Mental Healthcare for Children and Youth in Canada. Ottawa: The Conference Board of Canada, 2023.

©2023 The Conference Board of Canada* Published in Canada | All rights reserved | Agreement No. 40063028 | *Incorporated as AERIC Inc.

An accessible version of this document for the visually impaired is available upon request. Accessibility Officer, The Conference Board of Canada Tel.: 613-526-3280 or 1-866-711-2262 Email: accessibility@conferenceboard.ca

[®]The Conference Board of Canada is a registered trademark of The Conference Board, Inc. Forecasts and research often involve numerous assumptions and data sources, and are subject to inherent risks and uncertainties. This information is not intended as specific investment, accounting, legal, or tax advice. The responsibility for the findings and conclusions of this research rests entirely with The Conference Board of Canada.

The Conference Board of Canada Publication 12378 Price: Complimentary

conferenceboard.ca