

Impact Report Mental Health



In Canada, 20% of youth are affected by mental illness, but **only one in five receives the mental health care they need**. Solving this gap in care is one of CHEO's top priorities, and with 70% of mental health issues beginning in childhood and adolescence, it is well positioned to enact wide-reaching, positive change. To that end, new positions, services, and research projects were funded thanks in no small part to donor support.

In this report, you will learn exactly how your funds have helped CHEO strengthen its mental health care services in 2025.

Suicide Prevention Screening Tool

Prior to 2019, suicide screening was only offered to children and youth presenting to CHEO's inpatient mental health unit or its emergency department with mental health concerns. However, with mental health issues increasing at an alarming rate, CHEO determined that limiting the scope of this service could lead to children falling through the cracks. After careful consideration and in-depth planning, CHEO created Head to Toe, an initiative that made the Ask Suicide Screening Questionnaire (ASQ)—a psychometrically validated tool to gauge suicide risk—a key part of the admission assessment process for youth aged 12 and older. This made CHEO the first pediatric health centre in Canada to implement systematic screening for suicide risk in medically or surgically hospitalized children and youth. The results were immediate, showing that during the first six months of implementation, 72% (396) of eligible patients were screened, with 14% (57) of them disclosing suicidal thoughts or previous suicide attempts. This was in 2019. Fast forward to 2025, and the screening results have only improved: 91.8% (850) of eligible patients were screened, with 114 patients screening positive. Of the youth who screened positive, 75% (85) agreed to further risk assessment.

Early intervention plays a vital role in preventing mental health challenges from escalating, and thanks to your financial support, CHEO staff, medical staff, learners, and volunteers are properly equipped to assess the mental well-being of children and youth.



New Addiction Counsellor

Thanks to donor dollars, CHEO hired a part-time Addiction Counsellor from Rideauwood Addiction and Family Services—a community organization that specializes in substance use, behavioural addictions and mental health issues.

The Addiction Counsellor provides consultations and brief interventions for youth with substance use or addictions who are admitted to CHEO's Inpatient Mental Health Unit. This includes assessment of substance use history, motivational interviewing (a non-confrontational counselling technique used to elicit behavioural change), and brief intervention that covers abstinence and harm reduction strategies, education, peer-pressure and refusal skills, and relapse prevention skills. Youth and parents are also informed of additional substance use treatment programs in the community to support them once they leave CHEO.

To further support this population, every Tuesday afternoon, the Addiction Counsellor facilitates a 60-minute Substance Use and Addictions Presentation for Inpatient Youth. This course covers four different topics on a four-week schedule, equipping children, youth and families with information to help them at home. This includes healthy coping mechanisms, safe use of technology, and harm reduction strategies, among other important topics.

In 2025, 62 adolescents admitted at CHEO for mental health or physical health concerns were seen by the Addiction Counsellor for consultation. Following the initial consultation, the Addiction Counsellor was involved in providing key clinical interventions, including inpatient follow up.

“An inpatient mental health admission can be a critical turning point, spurring change in a youth's wellness trajectory, particularly with respect to their substance use. Our Addiction Counsellor at CHEO provides care to youth at this important juncture and serves as a key bridge for youth who are motivated to make changes as they leave the hospital. Having the right supports available at the right time can make a world of difference.” – Dr. Tea Rosic, Child & Adolescent Psychiatrist, CHEO

Substance use and mental health issues in children and youth go hand in hand, a fact that has long been ignored due to the upsetting nature of this unfortunate reality. Thanks to you, CHEO is better equipped to shatter the stigma surrounding this issue by providing the supports that the youngest and most vulnerable in our communities desperately need to live healthier lives.

Mental Health Research

Given recent world events, the increased use of technology and social media in children and youth, and historical underreporting of mental health issues, research is more important than ever. Recognizing this, clinicians and researchers at CHEO and the CHEO Research Institute are hard at work, keeping the pulse on major issues that children and youth face today in order to come up with solutions that meet their current and future needs.

Here are a few research projects that you have facilitated with your donations:

1. Leveraging AI-powered insights to help youth get the right care sooner for eating disorders

Predicting which young people with eating disorders will face a more complex treatment journey is a major challenge, with one in every three adolescents experiencing a relapse after initial treatment.

A new study led by the CHEO Research Institute's Stephanie Ryall, Dr. Nicole Obeid, and Dr. Khaled El Emam is the first ever to apply machine learning to predict clinical eating disorder outcomes in youth. Using data from over 300 adolescents treated at CHEO's Eating Disorders Program, researchers compared seven machine learning models trained on clinical characteristics from the first treatment episode to traditional statistical methods to predict which youth were likely to need readmission or receive more intensive care. They found that the best-performing model, called random forest, was significantly more accurate than standard logistic regression in predicting future complex clinical needs—and the model performed even better when more clinical characteristic data points were added to training.



This research shows the potential of machine learning predictive models to support personalized care through optimizing early intervention for youth with eating disorders. Future research will expand the sample size and look to validate these findings for use as a tool for clinicians in the hopes of providing better, more accurate care to the children and youth dealing with eating disorders.

2. Eating Disorders: Improving treatment response in patients with anorexia nervosa

Dr. Mark Norris and his team are unravelling the mystery of why eating disorders are so hard to treat. They are investigating biomarkers (e.g. gut microbiome, clinical characteristics, and social characteristics) to see if any of these can help identify patients who respond to treatment. They hope to find innovative ways to address issues like differences in gut bacteria to improve care. These metabolomic biomarkers of eating disorders will ultimately be used to tailor treatment and personalize therapies.

3. Leveraging AI and neuroimaging to advance pediatric concussion care; focusing on mental health

Concussions are among the most common injuries in children and youth, but they remain one of the most complex to diagnose and treat—especially when it comes to their impact on mental health. According to a study conducted by the CHEO Research Institute in 2022, young people who sustain a concussion are at a 40% higher risk of mental health issues, psychiatric hospitalization, and self-harm compared to those who sustain an orthopaedic injury, highlighting the importance of this field of research. In light of this, new ground-breaking research at CHEO is exploring how to use artificial intelligence and multimodal magnetic resonance imaging

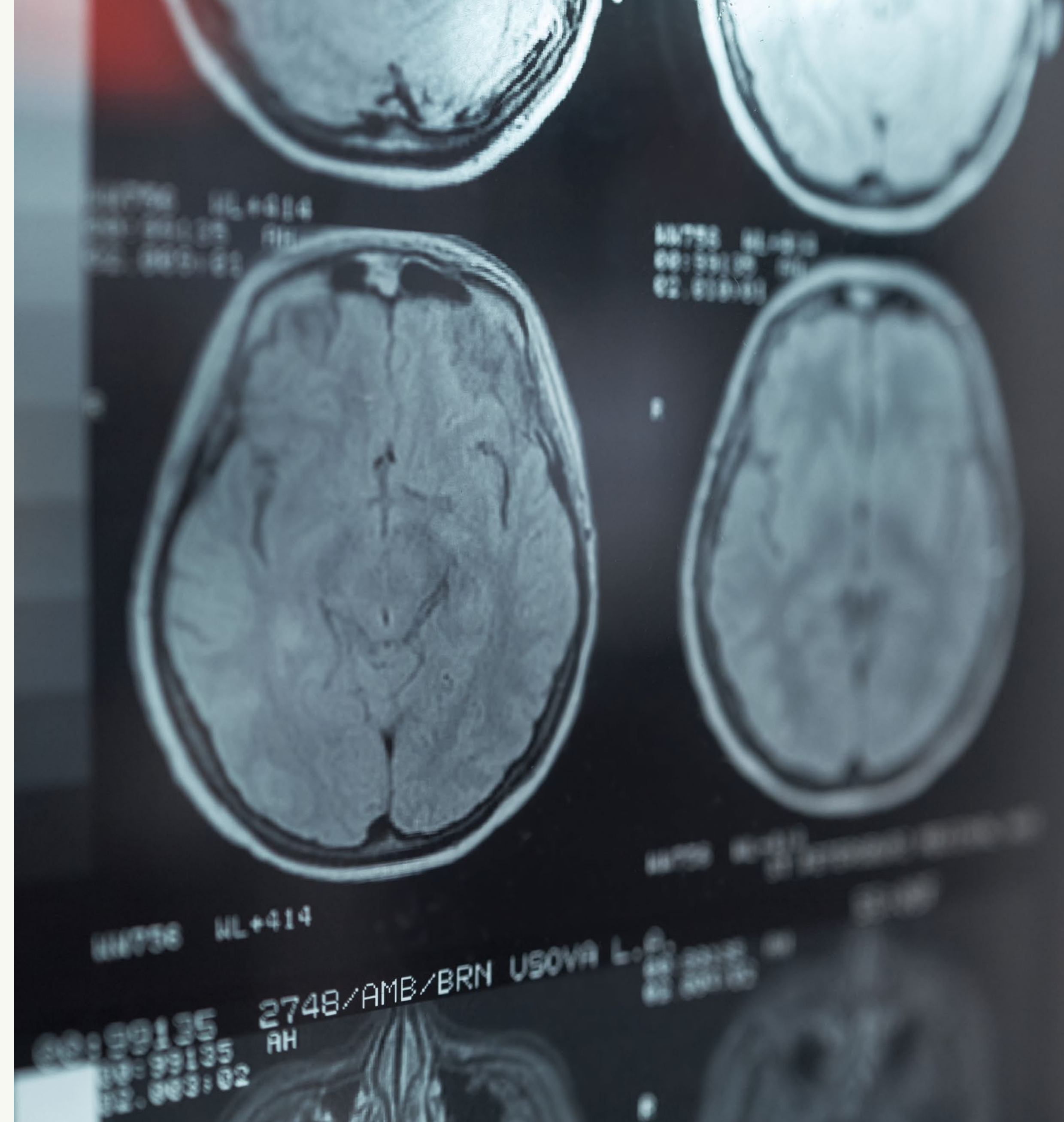


(MRI) to make pediatric concussion care more precise, personalized, and proactive. To further explore this promising marriage of technologies, an official project was created: the Multimodal Imaging and Advanced Informatics for Excellence in Pediatric Concussion Care (or MAP, for short).

The MAP project will analyze data from nearly 1,000 children aged eight to 18, including those with concussions and orthopedic injuries. Researchers use multimodal MRI to capture detailed information about brain structure and function. Unlike traditional imaging methods that average signals and mask individual differences, this approach preserves unique patterns. AI-driven clustering and predictive modeling then analyze these patterns alongside psychosocial data to identify biosignatures, which are distinct combinations of brain and behavioural markers. These biosignatures allow clinicians to:

- Classify concussion subtypes for more accurate diagnosis
- Identify children at risk for long-term symptoms such as emotional dysregulation or balance issues
- Develop predictive algorithms that could be used in clinical settings, including emergency rooms, to guide personalized care

The MAP project is a significant step toward individualized concussion care that considers the whole child, including their mental health, and has the potential to improve diagnostic accuracy, enhance treatment planning, and reduce the long-term impact of concussions on a child's health and well-being.



We hope this report demonstrates the meaningful impact your generosity has on CHEO's work to improve mental health care for children and youth. Collaboration between the community and healthcare providers drives innovation in this field, ensuring the kids who rely on CHEO receive the best possible mental health care.

Thank you for everything you make possible.



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