

2024 Annual Report



Edwin S.H. Leong Centre for Healthy Children



Edwin S.H. Leong Centre for Healthy Children
UNIVERSITY OF TORONTO

SickKids[®]



As it enters its fifth year, the global influence of the Edwin S.H. Leong Centre for Healthy Children continues to expand, thanks to the remarkable child-health experts we've brought together across Sick Kids and U of T. Together, they are advancing research and policy that is improving the lives of children and their families.”

— **Meric Gertler**
President, University of Toronto

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Message from the co-directors

Now in its midway phase, the Edwin S.H. Leong Centre for Healthy Children is leveraging our unique multidisciplinary expertise to test new interventions, identify developmental risks and expand our partnerships to provide children everywhere—regardless of where they live, grow, learn or play—with the opportunity to thrive. This work is fostering more equitable health outcomes through evidence-based clinical practices and policies and drawing additional support from government agencies such as the Public Health Agency of Canada.

In this report, you will read about how our research is driving new and better ways to help children with complex health needs who are transitioning from paediatric to adult care, ensuring continuity of care and resulting in improved health outcomes for vulnerable children.

You will also discover how we are working alongside Indigenous communities and applying our capacity in data science to help address the rising opioid crisis impacting families and newborns.


Finally, you will learn about our expanding network of national and international partnerships—including with Aarhus University in Denmark and the University of Hong Kong. These partnerships are fostering the development of new data-driven methods to predict the likelihood that children will require admission to intensive care and an international child cohort study focused on multiple domains of health.

We would like to thank our generous donor, Dr. Edwin S.H. Leong, for his continued support in realizing this vital work, which is helping children around the world flourish through new preventative and proactive health Interventions. We would also like to thank our members for joining us in our efforts to reduce inequities in child health outcomes. Together, we are harnessing the interdisciplinary research of the Centre to promote the flourishing of every child and family.

Sincerely,

Astrid Guttman
Co-Director, Edwin S.H. Leong Centre for Healthy Children

Eyal Cohen
Co-Director, Edwin S.H. Leong Centre for Healthy Children



In its fourth year, the Edwin S.H. Leong Centre for Healthy Children continued to break new ground in child health research, education, interventions and policy; leveraged its unparalleled access to child health datasets; and forged and strengthened international partnerships to help children everywhere thrive.

Raising healthy children everywhere

The Centre pursued new impactful child health research and expanded its training and education efforts through catalyst grants, Leong Centre Studentship Awards, Leong Scholar appointments and more.

144 papers published by researchers affiliated with our Centre in 2023–24—our most productive year to date

2 catalyst grants awarded

4 fellows named—two of whom have since received faculty appointments

5 Leong Scholars co-funded with the SickKids Research Training Centre

7 Leong Studentship Awards given to graduate students, post-doctoral research fellows and clinical trainees

14 participants in the Social Paediatrics Research Summer Studentship (SPReSS) Program and Paediatric Research and Clinical Summer (PeRCS) Program, funded to complete their work on a range of child health equity research projects

Leong Studentship Awards

The **Leong Studentship Awards** provide up to \$15,000 in annual funding for innovative research related to child health, and each of this year's seven recipients reflects the breadth of ideas funded by the Centre.

One example is **Chaoran Dong**, a PhD student in the Health Technology Assessment stream at the Institute of Health Policy, Management and Evaluation at U of T's Dalla Lana School of Public Health. Her current research aims to better understand the impact of ensuring wider geographical access to paediatric cancer care and to guide future expansion across Canadian provinces.

The results of this project will help assess the value of improving geographic accessibility for paediatric cancer patients in Ontario and potentially ensure more children and families—no matter where they live or how much money they have—get the very best cancer care. It's work that reflects Dong's research interest in understanding the relationship between wealth inequality and access to care for kids.

Leong Catalyst Grant Recipients

Meta Van den Heuvel, a paediatrician with the Hospital for Sick Children and associate professor with the Department of Paediatrics at the Temerty Faculty of Medicine at U of T, joined co-investigators Catherine Birken (SickKids), Linh Ly (SickKids), Francine Buchanan (SickKids), Ashley Danguedan (SickKids) and members of the Medical-Financial-Working Group to lead "The Financial Navigator Program—Optimizing Early Child Development by Facilitating Access to Financial Resources in the Neonatal Neuro-Developmental Follow-Up Program," helping to remove economic barriers to neonatal care.

Indra Narang, associate chair, interim executive lead, strategic advisor, equity, diversity and inclusion (EDI); associate chair, faculty development and EDI, Department of Paediatrics at SickKids and a professor of paediatrics with Temerty Medicine at U of T, is leading, along with Ronald Lui (Chinese University of Hong Kong); Albert Li (Chinese University of Hong Kong); Ting Au (SickKids); Anya McLaren-Barnett (McMaster Children's Hospital); Tetyana Kendzerska (Ottawa Hospital Research Institute); and Francine Buchanan (SickKids), "Facial Photogrammetry to Predict Obstructive Sleep Apnea in a Diverse Paediatric Population," looking into how we can better predict a harmful condition that not only disrupts healthy sleep but can affect all aspects of child health.

Supporting children with medical complexity as they age into adulthood

Most children and families look forward to their first steps toward adulthood: learning to drive, going to university, leaving home for the first time. But for families and children with fragile and life-threatening conditions requiring specialized care, growing up can be extremely stressful.

When children with medical complexity (CMC) near adulthood—generally considered between 16 and 19 years of age—their paediatric care-providers must hand off various paediatric primary and specialized care responsibilities to adult-care providers who may not be prepared to offer the same specialized level of care. Moreover, unlike other kids with chronic conditions, CMCs usually require the support of parents or guardians long after they grow up, a factor that paediatric-to-adult-care transitions often don't account for.

Evidence shows that poor transitions from child to adult care can often lead to negative health outcomes for children with complex health needs, who already account for a major portion of paediatric care. Despite making up less than one per cent of children and youth, CMCs account for 33 per cent of all spending on paediatric health care and 57 per cent of all paediatric hospital care costs.

To address this gap in care for CMCs, several Centre-affiliated researchers, led by principal investigator and co-director Eyal Cohen, are testing the effectiveness of health care “navigators.”

These navigators—which include a transition navigator, nurse navigator and social worker—help transition kids with medical complexity from a co-ordinated acute, primary, rehabilitation, home and community paediatric care plan to effective adult care. The Canadian Institutes for Health Research (CIHR)-funded study “Promoting Intensive Transitions for Children and Youth with Medical Complexity from Pediatric to Adult Care (PITCare)” will involve a randomized control trial to determine whether these transition navigators improve the patient’s continuity of care over two years, compared with standard care. The study also aims to determine whether these “navigators” provide a more cost-effective route to adult care and to gauge the experience of the patients themselves. This study is also building internal research capacity with two Leong Scholars, PhD students Natasha Bruno and Sarah Malecki, supporting the work.

The study’s outcome could help set a new benchmark in ensuring that children with medical complexity continue to receive compassionate lifetime care beyond childhood.

“Adult health-care providers at all hospitals in the Toronto Academic Health Science Network are involved in this study,” says principal investigator Eyal Cohen. “If the results are positive, we are going to try to work with policymakers to try to scale and spread the knowledge and the model of care for children with medical complexity—provincially, nationally and globally.”



Whether it’s collaborating with international child-health experts in Denmark and Hong Kong, supporting families in Ontario’s First Nations communities, or working with care providers across the Greater Toronto Area to help children with complex medical needs, the Edwin S.H. Leong Centre for Healthy Children is laying down the foundation for work that will directly improve the lives of children nationally and globally.”

—Ronald Cohn
President & CEO, SickKids

Edwin S.H. Leong Chair in Child Policy Research Arjumand Siddiqi (second from left) joins SickKids President & CEO Ronald Cohn (left), Edwin S.H. Leong Centre co-director Eyal Cohen (far right) and other leaders following her keynote address: “Precisely Speaking: Exploring Equity in Precision Population Health.”



The Leong Chair in Child Policy Research

Appointed in September 2023, the inaugural **Edwin S.H. Leong Chair in Child Policy Research Arjumand Siddiqi** has spent the last year researching papers and seeking grants to support a better understanding of how socioeconomic factors influence the health outcomes of children and families—and the role social policies play. More specifically, she has been examining how trends in population health and health inequalities change over time and what policies and societal conditions align with these changes.

In March 2024, Siddiqi delivered a keynote address as part of a Precision Child Health thought leadership series at SickKids titled “Precisely Speaking: Exploring Equity in Precision Population Health.” This talk examined how biological and social systems uniquely impact children, and how health systems can use geographic and socioeconomic data to create more precise interventions. Siddiqi was then joined by interdisciplinary colleagues from University Health Network, SickKids and the University of Toronto on a panel discussion.

As Siddiqi continues to build her research program, we look forward to sharing more about her work in next year’s impact report.

Leong Scholars lead new research into virtual care and children

Since the COVID-19 pandemic, virtual care—defined as any interaction between patients and care providers occurring remotely (e.g., through Zoom, telehealth, etc.)—has become more commonplace in health care, including in paediatrics.

But significant knowledge gaps prevent us from understanding how effective it is in supporting child health.

For example, while virtual care offers the potential of greater accessibility, it isn't clear if its benefits are shared across all patients from every background—particularly young people. A pair of studies led by two Leong Scholars—Erica Wennberg and David D'Arienzo—aim to shed light on the impact of virtual care on child and youth mental health and hospital-to-home transitions, respectively.

Erica Wennberg's PhD thesis, "Exploring the Accessibility and Quality of Virtual Mental Health Care for Youth and Young Adults with Mental Health Care Needs," will examine important questions around followup mental health care appointments after emergency department (ED) visits and hospital admissions for youth and young adults with anxiety and depression.

The project will test whether virtual care is associated with improved, more timely and equitable rates of followup mental health care and its effects on longer-term mental health. A further study will analyze and summarize all international qualitative studies on virtual mental health care and its impact on patients and physicians.

"My thesis centres on whether virtual care has been able to improve access to mental health care for youth and young adults," Wennberg explains. "I also want to look at whether it's as safe and effective as in-person care, which is an important question. Lastly, we'll look at the perspectives of young adults and health-care providers on the quality of mental health care that virtual care provides."

Meanwhile, David D'Arienzo's PhD thesis will examine whether virtual care can help improve the transition of paediatric patients from the hospital to the home, a complex process that involves patient education, medication reconciliation, arrangement of followup appointments, home-care services co-ordination and more.

Many health-care professionals see hospital-to-home transitions as messy and inadequate—leading to negative health outcomes—especially for children. D'Arienzo hopes to determine whether virtual care holds promise in improving outcomes for paediatric patients leaving the hospital—particularly patients with families who face economic or geographic barriers that make in-person physician visits difficult.

"I wanted to understand what tools and mechanisms we can put in place to optimize or improve the health-care system when it comes to caring for children once they leave hospital," says D'Arienzo. "With the advent of virtual care over the last couple of years, it may actually improve that transition-to-home process, especially for kids with working parents or who live far away from their family doctor."

As health-care systems around the world try to understand how much virtual care should be used, both sets of studies will be instrumental in ensuring virtual care is used appropriately and effectively in paediatric care. These studies will help provide evidence about how to reduce barriers to medical care safely for all children and families facing extremely difficult circumstances.



It's remarkable that the Edwin S.H. Leong Centre for Healthy Children is emerging not only as a force in frontier-leading child health research but has helped start lifelong careers in the field through its fellowships, trainee awards and scholars—with many going on to make an immense difference in Toronto and throughout Canada, but importantly also as some of the world's most influential researchers in the field of child health today."

—Meredith Irwin

Chair, Department of Paediatrics, U of T
Paediatrician-in-Chief,
Department of Paediatrics, SickKids



Building a global community of practice

By leveraging the University of Toronto’s reputation as a global leader in health sciences research and SickKids’ expertise in child health, the Edwin S.H. Leong Centre for Healthy Children is growing its profile and partnerships. This work is establishing the Centre as an international hub to cultivate research inquiry on the social and structural determinants of health to improve child-health outcomes.

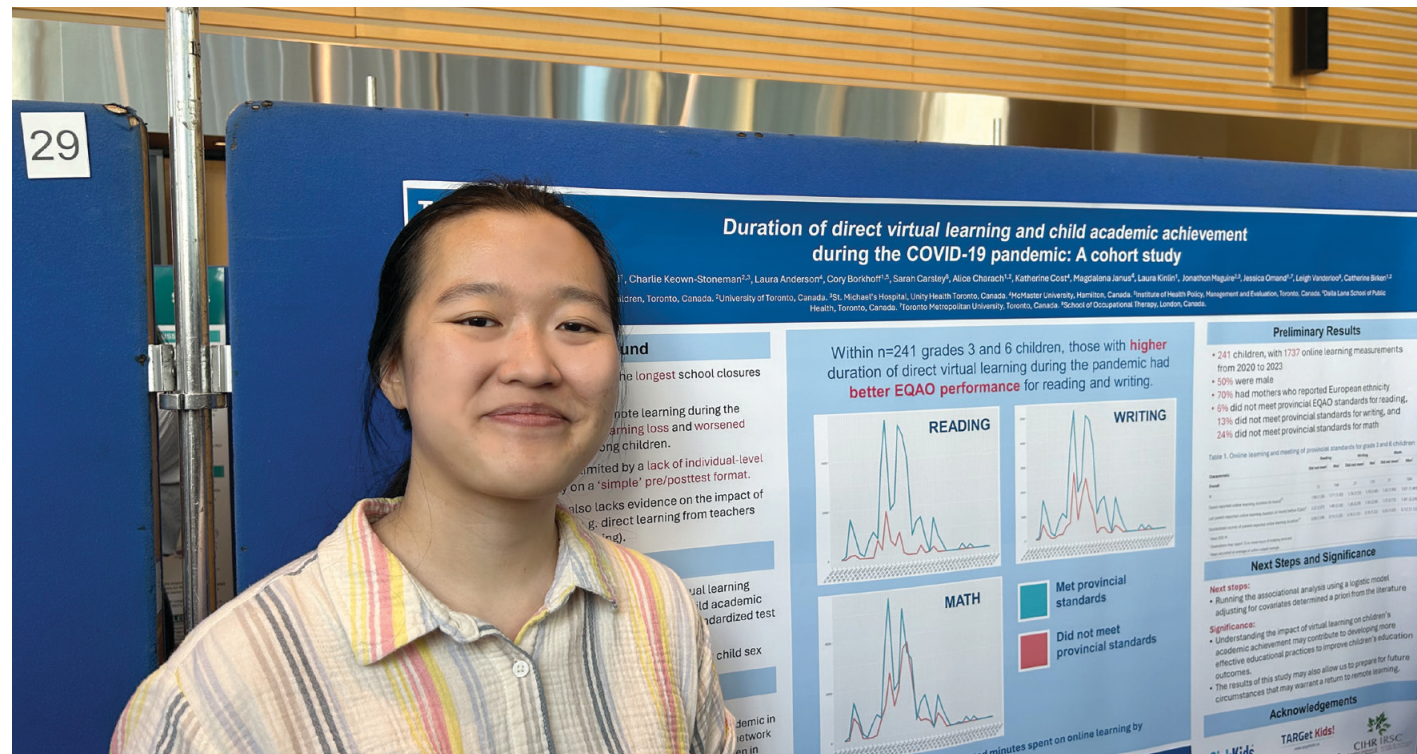
6 national and international university partnerships as part of training exchanges for PhD students and post-docs to leverage novel methodologies and expertise available at specific institutions to enhance their program of research. These included the University of Melbourne (Australia); University College London (U.K.); University of British Columbia; Aarhus University (Denmark); University of Hong Kong (China); and the National Center for Child Health and Development (Japan)

491 members including trainees, faculty members, physicians, research staff, community partners and administrators (10 per cent year-over-year increase)

35 research projects funded or co-funded by the Edwin S.H. Leong Centre for Healthy Children

19 educational events supported by the Centre in partnership with external academics and organizations, such as the Trainee Hub, the Community Engagement series and the Leong Centre Rounds with Child Health Evaluative Sciences

Bottom and opposite: Members of the TARGet Kids! EQAO research team.



Leong Centre Rounds

The Leong Centre Rounds lecture series, in partnership with Child Health Evaluative Sciences (CHES) at the SickKids Research Institute, provides a venue to host researchers, community members and policy users to showcase how they are making an impact on child health equity. Lectures over the past year included:

Precision Child Health: “Precisely Speaking: Exploring Equity in Precision Population Health”

To better predict who is at risk for poor health outcomes, we must understand how systems, including biological and social determinants of health, influence and impact the lives of children. This session explored the importance of precision approaches in understanding broad social patterns that contribute to both individual and population health.

Brain & Mental Health Grand Rounds: “The Impact of COVID-19 on Child and Youth Mental Health”

Research on the impact of COVID-19 on child and youth mental health suggests a deterioration on most mental health indicators. The presentation discussed discrepancies in the data and highlighted best practice recommendations for a post-pandemic recovery in this area of health.

Leong Centre Rounds with CHES: “Epigenetics and the Human Life Course”

This webinar presentation highlighted the importance and complexity of epigenetics across the human life course, various ways by which the epigenome can inform human health and disease, and opportunities for collaborative research in human epigenetics with the new Edwin S.H. Leong Centre for Healthy Aging at UBC.

Leong Chair in Child Health Intervention

It’s a subject of passionate debate, supported by little data: How much screen time is safe for kids, particularly when it comes to ensuring they’re successful in school?

Now, **Edwin S.H. Leong Chair in Child Health Intervention Catherine Birken** seeks to provide helpful insight into the matter with a new study: “TARGet Kids! Child Screen Time and EQAO.”

The study will investigate the relationship between screen use and Education Quality and Accountability Office (EQAO) standardized academic tests, examining how screen use relates to health behaviours and routines, such as sleep, mealtimes and factors considering socioeconomic status and/or geographical location.

The project leverages TARGet Kids! parent-reported data on health behaviours collected since 2008 and child screen use as well as academic data shared by EQAO that will help inform future interventions related to screen time recommendations. This work is also complemented by U of T’s Intervention Chair’s CIHR-funded project entitled “SUCCESS: Screen Use in Children and School Success,” which will investigate school achievement, screen use and child mental health.



First step toward a fruitful collaboration in Hong Kong

Catherine Birkin, the Edwin S.H. Leong Chair in Child Health Intervention, continues to take a significant lead in expanding our understanding of child health, including facilitating a key international partnership related to the paediatric research network, TARGeT Kids!.

Now, a new opportunity for international collaboration may add an invaluable dimension to Birken's child-health research. Patrick Ip is a renowned University of Hong Kong professor and specialist paediatrician with an interest in child health and developmental behavioural paediatrics and member of the Centre's International Scientific Advisory Committee.

Following meetings in Toronto in April 2024 between Birken, Ip and his research team, Birken's data analyst, Xuedi Li, visited Ip's team in Hong Kong in October 2024 to discuss collaborations and comparative work. As part of the visit, the two discussed potential collaborations, including identifying common data elements and tools from their respective child health research cohorts in Canada and Hong Kong, such as variables across child height and weight, child health behaviours, development, mental health, school readiness and school-based education data. They also discussed comparative research questions around issues such as child screen time, education, growth and obesity, and cardiometabolic risk data.

The meeting represents a significant first step in establishing core commonalities across longitudinal child health research cohorts and highlights our increasing international reach in fuelling innovative child health research that will inform clinical and policy interventions.

Patrick Ip (sixth from left) and the research team at the University of Hong Kong.



Patrick Ip (centre) and the research team at the University of Toronto.



Leong Trainee Hub

Since its launch in January 2023, the Centre's **Trainee Hub** has provided trainees and early-career researchers opportunities to learn and collaborate with each other.

This year, the Trainee Hub hosted seven workshops that covered various topics, including building trusting relationships between families and researchers, using storytelling as a research tool and establishing parent advisory groups to support a research project.

Workshop partners included a range of national child-health organizations, such as the Young Canadians Roundtable on Health, the CanChild Centre for Childhood Disability Research, TARGeT Kids! and more.

Leong Scholars

In addition to driving internationally important breakthroughs in child health, the Leong Scholars program has seen these leading academics draw significant external funding for their work.

In the past year, for example, Leong Scholars have earned the **Vanier Canada Graduate Scholarship** (Erica Wennberg and Sarah Malecki) and the **Canadian Institutes of Health Research Doctoral Award** (David D'Arienzo, Akshat Pai and Emily Hamovitch) to support innovative research, including several projects detailed in this report.

The Edwin S.H. Leong Centre for Healthy Children continues to leverage this support to further its research mission, and the Leong Scholars continue to flourish as leaders in their field.



Predicting the needs of children with congenital anomalies

Children with congenital anomalies (CA), sometimes referred to as birth defects, account for approximately two to three per cent of all births in Europe and the U.S. The presence of a major CA is a known risk factor for long-term chronic health conditions, with potential lifelong implications for children, including frequent use of health-care services, use of medical technology and support requirements for daily living.

But not every child with a major CA faces the same level and type of risk. Though researchers have attempted to categorize and analyze CAs in the past, these studies haven't included detailed demographic information and early-life events that occur right after birth, when a child's longer-term medical needs may not be as clear.

Two people on our team have authored a new study to better predict the needs of children with congenital anomalies. Co-principal investigator and co-director Eyal Cohen and veteran SickKids nurse practitioner and fellow Christina Belza have teamed up with Aarhus University in Denmark to better differentiate risk factors related to major CAs

Titled "Use of Latent Class Analysis to Predict Intensive Care Unit Admission and Mortality in Children with a Major Congenital Anomaly," the study—co-funded by the Canadian Institutes of Health Research (CIHR) and published in *The Journal of Pediatrics*—collected detailed long-term data from a population cohort over 20 years, with 27,000 participants.

The study's findings have helped identify several subgroups of children with CAs, based on both medical and sociodemographic information, with the potential to provide their families and health-care practitioners a more accurate understanding of future health risks over time.

The study is a critical step forward in delivering more precise care for children and their families, ensuring that children born with congenital anomalies receive the very best care possible. The study also represents the impact of the Centre's expanding international partnerships. Denmark has some of the most detailed health data in the world and the collaboration with Aarhus University is creating new opportunities to bring our expertise to bear on child health in a global context, with potential ramifications for the care and well-being of children facing chronic health issues around the world.

Community Engagement

The Centre's Community Engagement Series brings together researchers, trainees and community members to discuss innovative community-engaged research projects. These virtual one-hour sessions discuss best practices for community engagement and foster opportunities for sharing community-engaged experiences and ideas.

We continued to host a range of compelling, relevant discussions on child health over the past year, including:

"Waaneziyenhwiinoodjimoowayin: The Path That Is Taken to Heal Together"

A discussion of the results of the Waaneziyenhwiinoodjimoowayin project that heard stories from Indigenous parents and caregivers who interacted with the child welfare system, led by Angela Mashford-Pringle, an Algonquin (Timiskaming First Nation) assistant professor and associate director at the Waakebiness Institute for Indigenous Health, Dalla Lana School of Public Health at the University of Toronto; and Amy Shawanda, an Odawa Kwe from Manitoulin Island's Wikwemikong Unceded Territory and assistant professor in Indigenous health at McGill University's Department of Family Medicine.

"Addressing the Social Determinants and Inequities in Health for Black Communities"

A discussion focusing on strategies for advancing health equity in Black communities and highlighting how anti-Black racism and conditions of power shape social determinants and health inequities, led by Notisha Massaquoi, an assistant professor in the Department of Health and Society at the University of Toronto Scarborough campus with cross appointments in the Factor Inwentash Faculty of Social Work and Department of Family and Community Medicine, Temerty Medicine.

"The Family and Child Health Initiative: Building Trusting Relationships and Working in Partnership with Diverse Communities in Peel Region"

This webinar presentation focused on practical ways that researchers and clinicians can engage with diverse community organizations, influencers and members in a meaningful way to address health priorities. Presenters included Ian Zenlea, a paediatric endocrinologist and division head & medical director of Children's Health at Trillium Health Partners; Dianne Fierheller, a paediatric health-care social worker at SickKids and Trillium Health Partners; and Sara Abdullah, a research associate within the Family and Child Health Initiative at the Institute for Better Health.

Leveraging data to improve child health

In Year 4, the Edwin S.H. Leong Centre for Healthy Children continued to demonstrate how analyzing child health data can provide valuable insights that have the potential to improve the health and well-being of children and their families.

1 senior data analyst hired

30 years of data from the Institute for Clinical Evaluative Sciences (ICES) is driving the Centre's leading research papers

Catherine Birken's TARGet Kids! network is expanding into 10 Community Health Centres (CHCs) across Ontario to address the health experiences and needs of children and families in underrepresented populations

TARGet Kids!, the largest primary care children's cohort in Canada, successfully obtained and linked data from standardized testing data on reading, language and math through the Education Quality and Accountability Office (EQAO) on 6,117 children to understand the relationship between growth patterns, health behaviours, social media use and academic achievement

Leong Chair in Child Health Intervention Catherine Birken (furthest right) following a TARGet Kids! presentation.



Addressing an urgent public health crisis affecting mothers and children

The opioid epidemic is a global health crisis, one that is impacting children across the globe. We're engaged in work to address gaps in our understanding of its effects on infants, mothers and families, with the aim of improving care and outcomes.

For example, Canada currently lacks detailed clinical practice guidelines to support the health and development of children with prenatal opioid exposure once they leave the hospital. This is in part because we have little data to understand the long-term effects of prenatal opioid exposure. There is an urgent need to not only monitor prenatal opioid exposure and its associated health outcomes, but also to provide programming within health care and public health systems to address the important needs of pregnant people, mothers and children, including the root cause of opioid use.

To help fill this critical gap in maternal and child health, a first-of-its-kind multi-jurisdictional study will draw on detailed administrative health data to paint a more accurate picture of the effects of the opioid crisis on maternal and child health over time. The Edwin S.H. Leong Centre for Healthy Children, University of Toronto, ICES and SickKids researchers Andi Camden (a former Leong Fellow), Astrid Guttmann and Hilary Brown will receive nearly \$1 million over three years from the Public Health Agency of Canada (PHAC) to co-lead a project called the "Pan-Canadian Perinatal Opioid Use Surveillance System."

The project will establish the first and largest federated data platform to identify all mother-infant pairings affected by prenatal opioid use and to monitor health outcomes over time at the population level. This major initiative will link existing prescription opioid records with hospital care, physician outpatient visits and developmental records for mothers and infants across five provinces with full-population data (Alberta, British Columbia, Manitoba, Ontario and Saskatchewan).

Project researchers will apply innovative approaches that change with evolving public-health contexts and respond to the need for timely information, including machine-learning methods, leveraging big data from existing population-based health and demographic administrative data, data visualization techniques and novel data linkages.

Information generated from this project—which includes collaborations with researchers at the Universities of Calgary, British Columbia, Manitoba and Saskatchewan—will address persistent public-health surveillance evidence gaps and equip health-care practitioners and service providers with more precise clinical knowledge to address one of the most challenging modern public-health issues. And with support from a generous PHAC grant, it's a core example of how our researchers are drawing significant external funding for their work.

This surveillance tool will produce timely and accurate health data that can be used nationally, provincially and locally to provide information on the scope and public health impacts of perinatal opioid use, develop tailored programs and services for those most affected, and ultimately, achieve equitable health outcomes for pregnant and parenting people who use opioids.

"This project will also facilitate a lot of other Leong Centre research with the data we're bringing together," says co-director and principal investigator Astrid Guttmann. "We'll be able to compare how some regions and provinces are addressing the issue and measure what's working, including supporting children with prenatal opioid exposure who are experiencing neurodevelopmental concerns."

Working with 13 First Nations communities in Ontario to raise awareness and drive action on prenatal opioid exposure

Canada is currently facing an opioid crisis that has greatly impacted Indigenous communities, raising concerns about the harms associated with opioid use, particularly among pregnant women and their children. In First Nations communities, similar to other Indigenous populations in many countries, opioid addiction is often linked to individual, collective and intergenerational trauma; however, these communities also have valuable insights and solutions to promote healing.

In response to the concerns raised by several First Nations communities in Ontario regarding the health of school-age children exposed to opioids prenatally, 13 First Nations communities partnered with our co-director Astrid Guttman and with the Child-Bright network—which aims to improve outcomes for children with brain-based developmental disabilities and their families. This collaboration resulted in the impactful report titled “Prenatal Opioid Exposure and Neonatal Abstinence Syndrome: A Research Project with 13 First Nations Communities in Ontario,” published in October 2023. The report highlights the effects of prenatal opioid exposure on families and children, while also showcasing the strength and resilience of these communities in fostering healing.

Participants in this project included families, caregivers, health and social service providers, educators, Elders and community leaders. Together, they discussed innovative and evidence-based strategies to support families impacted by prenatal opioid exposure. These strategies included creating centres for mothers and children, providing trauma-informed care, enhancing training for educators and service providers, offering respite support for

families and caregivers, and making changes to the child protection system. Participants also highlighted the importance of prevention, emphasizing the need to address intergenerational trauma and integrate cultural practices into community life.

As one community member noted, “Our community works hard at keeping our children within the community... If the parent can’t take care of the child because of an addiction, our community is usually pretty good in finding or having a home ready for them. And I think that keeping children with prenatal opioid exposure in the community—around their culture and around their other family members—is a huge strength.”

As a next step, each participating First Nations community will develop a customized plan to share the findings of their community report to better support children and families impacted by prenatal opioid exposure. The project team will provide knowledge translation support to the participating First Nations communities in this next phase of the project. The data generated has already led to successful funding applications and innovations in care by the participating communities, and recent data analyses show prenatal opioid exposure rates are decreasing.

The learnings from this research can inform broader policies to address the opioid crisis in a wider group of communities facing similar challenges. By highlighting community-driven solutions, these insights can help develop effective support systems for families impacted by prenatal opioid exposure.



Looking ahead

As we enter our fifth year, we’re excited to continue strengthening our partnerships with various groups across the University of Toronto, SickKids and national and international institutions, laying the groundwork for an international child health research consortium. This network will create opportunities for trainee exchanges, collaborative grant applications and joint publications.

We also look forward to finalizing our search for the inaugural Edwin S.H. Leong Chair in Data Science for Child Health. This position will build on the exceptional child health datasets and expertise that underpin much of the research detailed in these pages.

Website: <https://leongcentre.utoronto.ca/>
X (Twitter): <https://x.com/LeongCentre>
LinkedIn: <https://www.linkedin.com/company/leongcentre>

The information in this report is current as of September 2024. Please see our website for updated information, including the latest research, news and events from the Edwin S.H. Leong Centre for Healthy Children.



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