

Edwin S.H. Leong Centre For Healthy Children Symposium

# Connecting Health and Education to Improve Child Wellbeing



October 9, 2025 – Peter Gilgan Centre for Research and Learning

# Table of Contents

<b>Agenda .....</b>	<b>3</b>
<b>Panels and Breakout Sessions .....</b>	<b>5</b>
<b>Opening Plenary: "Bridging Systems, Building Futures: A Cross-Sector Vision for Child Wellbeing" .....</b>	<b>6</b>
<b>Fireside Chat: "Building Partnerships and Capacity in Health and Education" .....</b>	<b>7</b>
<b>Concurrent Breakout Sessions (AM)</b>	
A. "Engaging Youth, Families, and Communities in School-Based Research" .....	8
B. "Insights in Linked Health Education Data" .....	9
C. "Research in Schools: Needs, Challenges, and Future Directions" .....	10
D. "Phones Down, Voices Up: Grounding Classroom Tech Policy in Youth Experience" .....	11
<b>Keynote Address: "Understanding the Smartphone Generation's Mental Health" .....</b>	<b>12</b>
<b>Concurrent Breakout Sessions (PM)</b>	
A. "Innovative Support Mechanisms for Child Development: Using AI in Educational and Family Settings" .....	13
B. "Using Health and Education Data to Address the Social Determinants of Health" .....	14
C. "Online Safety and Strategies for Change" .....	15
D. "Unplugged: Parent-Led Advocacy for a Smartphone-Free Childhood" .....	16
<b>Fireside Chat: "Schools as Hubs for Community Health" .....</b>	<b>17</b>
<b>Presentation Abstracts .....</b>	<b>18</b>
Quick Hit Presentations .....	19
Poster Presentations .....	25

# Agenda

**7:30 – 8:30 Registration, Coffee & Networking**

**8:30 – 8:40 Welcoming Remarks**

Ronni Cohn, President & CEO, The Hospital for Sick Children

Eyal Cohen & Astrid Guttmann, Co-Directors, Edwin S.H. Leong Centre for Healthy Children

**8:40 – 9:10 Opening Plenary: “Bridging Systems, Building Futures: A Cross-Sector Vision for Child Wellbeing”**

Nancy Naylor, Former Deputy Minister of Education and Former Associate Deputy Minister of Health

**9:10 – 10:10 Fireside Chat: “Building Partnerships and Capacity in Health and Education”**

Moderator: Astrid Guttmann, Co-Director, Edwin S.H. Leong Centre for Healthy Children

Panelists: Ruth Gilbert, University College London; Naho Morisaki, National Centre for Child Health and Development; Robert Kahn, Cincinnati Children’s Hospital

**10:10 – 10:30 Refreshment Break**

**10:30 – 11:30 Concurrent Breakout Sessions**

*“Engaging Youth, Families, and Communities in School-Based Research”*

**Event Room 2a/2b**

Moderators: Priscilla Medeiros, Edwin S.H. Leong Centre for Healthy Children; Francine Buchanan, SickKids

Speakers: Carol-Ann Burke, OISE; Timothy Ross, Holland Bloorview; Wenonah Campbell, McMaster

*“Insights in Linked Health Education Data”*

**Event Room 1**

Moderator: Astrid Guttmann, Edwin S.H. Leong Centre for Healthy Children

Speakers: Ruth Blackburn, UCL; Magdalena Janus, McMaster

*“Research in Schools: Needs, Challenges, and Future Directions”*

**Event Room 3a/3b**

Moderator: Sloane Freeman, Unity Health Toronto

Speakers: Michelle Science, SickKids; Amie Presley, TDSB

*“Phones Down, Voices Up: Grounding Classroom Tech Policy in Youth Experience”*

**Multi-Media Room**

Moderator: Ashley Vandermorris, SickKids

Speakers: André Côté, Ashna Ali, Guneet Dhami, Liola Mytkolli, TMU

**11:30 – 12:30 Keynote Address: “Understanding the Smartphone Generation’s Mental Health”**

Jean M. Twenge, San Diego State University

12:30 – 1:30

## Lunch, Networking & Poster Viewing

1:30 – 2:30

## Concurrent Breakout Sessions

*“Innovative Support Mechanisms for Child Development: Using AI in Educational and Family Settings”*

### Event Room 1

Moderator: [Ripudaman Minhas](#),  
Unity Health Toronto

Speakers: [Eunice Jang](#), [Michal Perlman](#),  
[Jenny Jenkins](#), [Eldan Cohen](#), UofT

*“Using Health and Education Data to Address the Social Determinants of Health”*

### Multi-Media Room

Moderator: [Catherine Birken](#),  
Edwin S.H. Leong Centre for Healthy Children

Speakers: [Andi Camden](#),  
Edwin S.H. Leong Centre for Healthy Children; [Kelly Gallagher-Mackay](#), WLU;  
[Jennifer Hove](#), EQAO

*“Online Safety and Strategies for Change”*

### Event Room 2a/2b

Moderator: [Ellie Adler](#),  
Edwin S.H. Leong Centre for Healthy Children

Speakers: [Stephanie Donaldson](#), OPSBA;  
[Charlotte Moore Hepburn](#), [Gwendolyn Moncrieff-Gould](#),  
SickKids

*“Unplugged: Parent-Led Advocacy for a Smartphone-Free Childhood”*

### Event Room 3a/3b

Moderator: [Susitha Wanigaratne](#),  
Edwin S.H. Leong Centre for Healthy Children

Speakers: [Michele Locke](#), [Taryn Graham](#),  
Unplugged Canada

2:30 – 3:00

## Refreshment Break & Poster Viewing

3:00 – 3:30

## Poster Quick Hits & Awards

[Natasha Bruno](#), PhD Student, The Hospital for Sick Children

3:30 – 4:30

## Fireside Chat: “Schools as Hubs for Community Health”

Moderator: [Eyal Cohen](#), Co-Director, Edwin S.H. Leong Centre for Healthy Children

Panelists: [Sharon Goldfeld](#), Melbourne Children’s Research Institute; [Patrick Ip](#),  
University of Hong Kong; [Daniel Sellen](#), University of Toronto

4:30 – 5:00

## Reflections of the Day & Evaluation

[Eyal Cohen](#) & [Astrid Guttman](#), Co-Directors, Edwin S.H. Leong Centre for Healthy Children

# Panels and Breakout Sessions

## Opening Plenary

### Bridging Systems, Building Futures: A Cross-Sector Vision for Child Wellbeing

8:40 – 9:10 am | Auditorium

Meaningful engagement of youth, families, and communities is essential to shaping education research that is relevant and grounded in lived experience. This workshop will explore why engagement matters and how youth, families, and community members can play an active role in research that influences both in-school and out-of-school educational settings. Participants will learn best practices for involving youth and families in research design and decision-making, and explore practical tools for building authentic, community-connected partnerships that support educational equity and well-being.

#### Plenary Speaker



#### **Nancy Naylor**

Former Deputy Minister of Education and  
Former Associate Deputy Minister of Health

Nancy Naylor served in the Ontario Public Service for over 35 years. She served as the Deputy Minister of Education for five years, and also served in leadership roles in the Ministries of Health, Finance and Colleges and Universities. Her roles included leading major projects in funding, labour relations, infrastructure, information technology and public policy. Ms. Naylor holds degrees from McMaster University and Carleton University and has served on a number of other boards, including the Public Policy Forum.

## Fireside Chat

### Building Partnerships and Capacity in Health and Education

9:10 – 10:10 am | Auditorium

This fireside chat will bring together researchers and leaders engaged in school-based research across different jurisdictions. Panelists will share brief introductions (sharing who they are, how they came to this work, and their positioning in this space) before moving into a discussion that weaves together diverse examples and perspectives. The session will explore how schools and health researchers can work together to advance child health and equity, with panelists' articles shared in advance for further reflection.

#### Speakers



**Ruth Gilbert**

Population, Policy & Practice Department,  
University College London



**Naho Morisaki**

Department of Social Medicine, National  
Centre for Child Health and Development



**Robert Kahn**

Fisher Child Health Equity Center,  
Cincinnati Children's Hospital

#### Moderator



**Astrid Guttman**

Symposium Co-Chair  
Edwin S.H. Leong Centre for Healthy Children,  
University of Toronto, The Hospital for Sick Children



## Breakout Session

### Engaging Youth, Families, and Communities in School-Based Research

10:30 – 11:30 am | Event Room 2a/2b

Meaningful engagement of youth, families, and communities is essential to shaping education research that is relevant and grounded in lived experience. This workshop will explore why engagement matters and how youth, families, and community members can play an active role in research that influences both in-school and out-of-school educational settings. Participants will learn best practices for involving youth and families in research design and decision-making, and explore practical tools for building authentic, community-connected partnerships that support educational equity and well-being.

#### Speakers



**Carol-Ann Burke**

Ontario Institute for Studies in  
Education, University of Toronto



**Timothy Ross**

Bloorview Research Institute, Holland  
Bloorview Kids Rehabilitation Hospital



**Wenonah Campbell**

School of Rehabilitation Science,  
McMaster University

#### Moderators



**Priscilla Medeiros**

Edwin S.H. Leong Centre for Healthy  
Children, University of Toronto,  
The Hospital for Sick Children



**Francine Buchanan**

Office of Patient, Family &  
Community Engagement,  
The Hospital for Sick Children



## Breakout Session

### Insights in Linked Health and Education Data

10:30 – 11:30 am | Event Room 1

This session will explore the potential of linking health and education data to improve our understanding of child and youth wellbeing. Drawing on case studies from England and Canadian jurisdictions, speakers will share practical examples of how these data connections have been established and used to generate meaningful insights. The session will highlight both the technical and governance challenges involved in creating these linkages, the types of research questions they enable, and the implications for policy and practice. These examples will help identify what's needed to advance similar data integration efforts in Ontario, where such linkages are not yet routine.

#### Speakers



**Ruth Blackburn**

Population, Policy & Practice  
Department, University College London



**Magdalena Janus**

Offord Centre for Child Studies,  
McMaster University

#### Moderator



**Astrid Guttman**

Symposium Co-Chair  
Edwin S.H. Leong Centre for Healthy Children,  
University of Toronto, The Hospital for Sick Children

## Breakout Session

### Research with Schools: Needs, Challenges, and Future Directions

10:30 – 11:30 am | Event Room 3a/3b

This session will discuss current and emerging themes related to children's health research within the education system. We will explore facilitators and challenges to conducting research in schools. We will delve into the ethical and practical considerations of doing health research in schools as well as the importance of including parent and student voices.

#### Speakers



**Michelle Science**

Division of Infectious Diseases,  
The Hospital for Sick Children



**Amie Presley**

Toronto District School Board

#### Moderator



**Sloane Freeman**

St. Michael's Hospital's Inner City Health Program,  
Unity Health Toronto

## Breakout Session

### Phones Down, Voices Up: Grounding Classroom Tech Policy in Youth Experience

10:30 – 11:30 am | Multi-Media Room

As schools across Canada introduce new phone restriction policies, how can decision makers ensure that these approaches support student wellbeing, equity, and engagement? This interactive session brings together perspectives from youth advocates and policy leaders to examine emerging approaches, reflect on the real-world impacts of tech use in classrooms, and explore practical strategies for embedding youth voice in policy design. Participants will leave with actionable ideas, guiding principles, and cross-sector strategies to advance healthier digital environments in schools.

#### Speakers



**André Côté**

The Dais,  
Toronto Metropolitan University



**Guneet Dhani**

Screen Break Youth Champion



**Ashna Ali**

The Dais,  
Toronto Metropolitan University



**Liola Mytkolli**

Screen Break Youth Champion

#### Moderator



**Ashley Vander Morris**

Division of Adolescent Medicine,  
The Hospital for Sick Children

## Keynote Address

### Understanding the Smartphone Generation's Mental Health

11:30 am - 12:30 pm | Auditorium

Today's kids and teens are more likely to be anxious or depressed than previous generations, likely because they spend more time online and less time with each other in person and get less experience with free play and independence. What can we do about it? Dr. Twenge offers 10 rules for raising kids in a high-tech world, including no devices in the bedroom overnight, no social media until age 16, no phones during the school day bell to bell, and helping kids explore real-world freedom and responsibility.

#### Keynote Speaker



**Jean M. Twenge**

Department of Psychology,  
San Diego State University

Jean M. Twenge, Professor of Psychology at San Diego State University, is the author of more than 190 scientific publications and seven books, including *10 Rules for Raising Kids in a High-Tech World* and *Generations: The Real Differences between Gen Z, Millennials, Gen X, Boomers and Silents—and What They Mean for America's Future*. She holds a BA and MA from the University of Chicago and a PhD from the University of Michigan. She writes the Generation Tech Substack.

## Breakout Session

### Innovative Support Mechanisms for Child Development: Using AI in Educational and Family Settings

1:30 – 2:30 pm | Event Room 1

This session explores innovative approaches to collecting data that deepen our understanding of children's experiences in schools and their families. It will spotlight two AI-driven innovations including: BalanceAI, a curriculum-based oral language and literacy assessment tool for grades 1-8, and the Machine Learning Models project, which uses automated scoring of parent-child interactions to advance equity in children's developmental health. Together, these examples demonstrate how emerging technologies, and creative methodologies can make research more responsive and impactful.

#### Speakers



**Eunice Jang**

Ontario Institute for Studies in  
Education, University of Toronto



**Jenny Jenkins**

Ontario Institute for Studies in  
Education, University of Toronto



**Michal Perlman**

Ontario Institute for Studies in  
Education, University of Toronto



**Eldan Cohen**

Department of Mechanical &  
Industrial Engineering,  
University of Toronto

#### Moderator



**Ripudaman Minhas**

St. Michael's Hospital,  
Unity Health Toronto

## Breakout Session

### Using Health and Education Data to Address the Social Determinants of Health

1:30 – 2:30 pm | Multi-Media Room

Education is a key determinant of health, just as health contributes to educational success. This session explores how Ontario's Education Quality and Accountability Office (EQAO) and other administrative data can be used together to study the intersections of health and education. Those in attendance will learn what data is available, what gaps remain, and the types of research questions this combined data can help answer to inform policy and practice.

#### Speakers



**Andi Camden**

Edwin S.H. Leong Centre for Healthy Children, University of Toronto, The Hospital for Sick Children



**Kelly Gallagher-Mackay**

Faculty of Liberal Arts (Law and Society), Wilfred Laurier University



**Jennifer Hove**

Education Quality and Accountability Office (EQAO)

#### Moderator



**Catherine Birken**

Edwin S.H. Leong Centre for Healthy Children, University of Toronto, The Hospital for Sick Children

## Breakout Session

### Online Safety and Strategies for Change

1:30 – 2:30 pm | Event Room 2a/2b

This session explores advocacy efforts to address online safety in Canada, at the federal, provincial, and school-board level. Speakers will discuss the role of research in advocacy, current Canadian and international efforts to regulate technology platforms, and the distinct roles of both legislative advocacy and litigation in terms of holding technology companies accountable for their actions. Participants will leave with clear understanding of the current advocacy landscape as well as clear actions they can take to help support safer online environments for children and youth.

#### Speakers



**Stephanie Donaldson**

Ontario Public School Boards' Association



**Charlotte Moore Hepburn**

Department of Pediatrics,  
The Hospital for Sick Children



**Gwendolyn Moncrieff-Gould**

Child Health Policy Accelerator,  
The Hospital for Sick Children

#### Moderator



**Ellie Adler**

Edwin S.H. Leong Centre for Healthy Children,  
University of Toronto, The Hospital for Sick Children



## Breakout Session

### Unplugged: Parent-Led Advocacy for a Smartphone-Free Childhood

1:30 – 2:30 pm | Event Room 3a/3b

This one-hour facilitated session will examine the growing influence to delay children's access to smartphones and social media. Participants will engage in guided reflection, hear insights from parents leading successful grassroots initiatives at their own children's schools, and participate in a group dialogue focused on values and action.

The session will conclude with an invitation to articulate a personal commitment—an intentional step participants can take within their own spheres of influence. Designed to foster thoughtful conversation and community momentum, this session offers a space for reflection, learning, and meaningful engagement.

#### Speakers



**Michele Locke**  
Unplugged Canada



**Taryn Graham**  
Unplugged Canada

#### Moderator



**Susitha Wanigaratne**  
Edwin S.H. Leong Centre for Healthy Children,  
University of Toronto, The Hospital for Sick Children

## Fireside Chat

### Schools as Hubs for Community Health

3:30 – 4:30 pm | Auditorium

Children spend more time in schools than any other community-based setting. The aim of today's symposium today was to think deeply about what that means in relation to children's health and what this means for child health equity, especially since school and health systems are operationally distinct. This concluding panel discussion will bring together researchers and leaders from Canada, Australia and Hong Kong who have been engaged in school-based research. The focus of the session will be a conversation highlighting their perspectives on how we can rethink the role of schools as hubs of child health including their reflections on many of the rich discussions we will have had over the day.

#### Speakers



**Sharon Goldfeld**

Murdoch Children's Research Institute,  
the Royal Children's Hospital



**Patrick Ip**

Department of Paediatrics & Adolescent  
Medicine, University of Hong Kong



**Daniel Sellen**

Lawson Centre for Child Nutrition,  
University of Toronto

#### Moderator



**Eyal Cohen**

Symposium Co-Chair  
Edwin S.H. Leong Centre for Healthy Children,  
University of Toronto, The Hospital for Sick Children

# Presentation Abstracts

# List of Abstracts

## Quick Hit Presentations

1. Childhood overweight and obesity and academic achievement in elementary school as measured by standardized tests: a prospective cohort study .....21
2. The cognitive function and mental wellbeing of children & adolescents after long COVID: A longitudinal follow-up study.....22
3. Recognizing Signs of Diabetes in Children at School: Interim Evaluation of the First Year of Implementation .....23
4. Screen time and academic achievement in elementary school: A prospective cohort study .....24
5. Complexity of interactions between the health sector, education sector, and social determinants of health: The example of pediatric emergency mental health care for suicidality .....25
6. Using the Canadian Food Scoring System (CFSS) to assess and improve the nutritional quality of school food programs in Canada .....26

## Poster Presentations

1. Vision Care Services in Children with Prenatal Opioid Exposure: A Population-Based Cohort Study .....27
2. Feeding Kids, Nourishing Minds: Unveiling Canada's School Food Landscape to Advance Health Equity for Children .....28
3. Can Hand Grip Strength be Measured Reliably in Very Young Children? A Study of Test-Retest Reliability .....29
4. Enhancing a sense of belonging through physical activity: "Active Community, Connected Community" .....30
5. Bridging Hospital, Home, and School: The Role of POGO Interlink Nurses in Supporting Children with Cancer Across the Care Continuum .....31
6. Association between the timing of introducing complementary food, BMI z-score, and overweight/obesity in children aged 6 years in Hong Kong – a population-based study .....32
7. Community rectal and stool carriage of antimicrobial resistant (AMR) extended-spectrum beta-lactamase-producing Enterobacterales (ESBL-E) in Hong Kong children .....33
8. School readiness in very preterm infants in Ontario: a pilot database study .....34
9. Variation in Hospital Rates of Follow-up Care for Children and Adolescents Discharged from Psychiatric Hospitalization.....35
10. Nourishing Black Children: Facilitators and Barriers to Culturally Responsive School Food Programs in Toronto .....36
11. The health of international students in Canada (2013-2024): A scoping review of peer-reviewed and grey literature ....37
12. Early Childhood Cognition as a Predictor of Academic Performance in the Adolescent Brain Cognitive Development Study .....38
13. The Association Between Learning Format During the Covid-19 Pandemic, Mental Health Symptoms, and Parent-Reported School Performance in Kindergarten and Grades 1-12 .....39
14. Sex-specific associations between sense of family belonging and perceived emotional connection with parents and blood biomarkers of inflammation in Chinese adolescents .....40
15. Association between teacher competencies and social-emotional learning in the classroom .....41
16. Building employment skills and expectations for youth with intellectual and developmental disabilities and their families through Project SEARCH Toronto: A case study .....42
17. Investigation of the immunological responses to seasonal influenza vaccine (SIV) in children and adolescents in Hong Kong .....43
18. The IgG3-Complement C5a-NK Cell Axis in Vaccine-Related Myocarditis: Insights for Safer mRNA Vaccines in Children.....44
19. Protecting Children Online: A Comparative Analysis of International Legislative Approaches .....45

20. Disparities in Chronic Disease Burden in Youth with Disabilities: A Population-Based Birth Cohort Study .....	46
21. Examining the Partisan Dynamics of School Food in Canada .....	47
22. Exploring the Use of Trigger Warnings on Self-Harm and Suicide-Related Content on TikTok .....	48
23. Evaluating the Effects of a Provincial Virtual Care Program on Pediatric Post-Discharge Follow-Up Trends .....	49
24. Leveraging School-Based Targets to Address the Impact of Screen Use on Child and Youth Mental Health .....	50
25. Estimating the Economic Impact of Reducing Geographical Disparities in Pediatric Cancer Care .....	51
26. The Association Between the Introduction of Virtual Care and Follow-Up Mental Health Care Among Youth Whose First Mental Health Contact Was Through the Emergency Department or Hospital .....	52
27. Effectiveness of a community lifestyle modification intervention on children's behaviour among low-income families in Hong Kong .....	53
28. Teaching Educators About Acquired Brain Injury – TeachABI, an Online Brain Injury Professional Development Module for Educators .....	54
29. Considerations of equity, cultural diversity and inclusion in school food programs in Ontario, Canada .....	55
30. Effects of Rapid Weight Gain in Infancy on Blood Pressure and Body Mass Index Status in Early Adolescence: A Retrospective Birth Cohort Study .....	56
31. Understanding School-Based Rehabilitation Services Through the Lived Experience of Children and Youth: A Meta- Aggregative Review .....	57
32. Assessing the impact of a pilot interdisciplinary wrap-around service for children and youth with extensive mental and neurodevelopmental health needs on school engagement .....	58
33. Cellphone use in Ontario Schools: Preliminary Data Examining Policy Implications for Child and Youth Mental Health.....	59
34. Understanding the Impact of COVID-19 School Closures on Mental Health of School-Aged Children and Young Adults in Ontario .....	60
35. Bridging the Health-Education Divide: Hospital-to-School Transitions After Traumatic Brain Injury .....	61
36. Building a National Linked Pregnancy Cohort in Canada: Integrating Clinical, Social, and Environmental Data for Perinatal Health Research .....	62

## Quick Hit Presentation

Abstract #1

### **Childhood overweight and obesity and academic achievement in elementary school as measured by standardized tests: A prospective cohort study**

**Karen Zhang (TARGet Kids!)**, Catherine S. Birken, Xuedi Li, Charles D.G. Keown-Stoneman, Vasanti S. Malik, Jessica A. Omand, Jonathon L. Maguire

Karen Zhang is a Master's student in the Department of Nutrition at the University of Toronto. Her research focuses on understanding the associations between children's weight status, zBMI, and academic achievement.

**Introduction:** Existing literature on child obesity and academic achievement has inconsistent findings, with no studies using standardized tests within Ontario's education system.

**Objective:** To examine the associations between child age- and sex-standardized body mass index (zBMI) and academic achievement as measured by standardized tests in reading, writing, and math in Grades 3 and 6.

**Methods:** A prospective cohort study was conducted among children enrolled in TARGet Kids! primary care practice-based research network between 2012–2023 in Ontario, Canada. The exposure was child zBMI based on measured height and weight using the World Health Organization (WHO) standard protocols. The closest zBMI measurement prior to the outcome was used. The outcome was levels of academic achievement, measured by the Ontario provincial standardized test in Grades 3 and 6 for reading, writing, and math (below, at, or above the provincial standard). Proportional odds models adjusted for potential confounders were used to estimate associations between zBMI and academic achievement.

**Results:** This study included 3,409 Grade 3 (mean zBMI= 0.14, mean age at zBMI measurement = 6.2 years) and 2,115 Grade 6 children (mean zBMI= 0.16, mean age at zBMI measurement= 8.2 years), 51% male. Due to non-linear associations, specific zBMI contrasts were selected and reported based on the WHO cut-offs. Compared to children with a zBMI of 0, those with a zBMI of 2 and 3 had lower academic achievement in Grade 3 math (POR = 0.86; 95% CI = 0.77, 0.96), Grade 6 reading (POR = 0.79; 95% CI = 0.67, 0.92), and Grade 6 writing (POR = 0.80; 95% CI = 0.69, 0.94). There was some evidence that academic achievement for those with a zBMI of -2 differed from those with a zBMI of 0.

**Conclusions:** Having overweight or obesity was associated with lower academic achievement in elementary school. These findings may inform the development of interventions to improve later academic achievement.

## Quick Hit Presentation

Abstract #2

### **The cognitive function and mental wellbeing of children & adolescents after long COVID: A longitudinal follow-up study**

Wan Yee Winnie Tso (The University of Hong Kong), Yuliang Wang, Lok Kan Leung, Leticia Liang

Professor Wan Yee Winnie Tso is a developmental paediatrician with special interests in neurorehabilitation. She is a clinical associate professor at the Department of Paediatrics & Adolescent Medicine, School of Clinical Medicine, University of Hong Kong. Prof Tso leads the Paediatric Acquired Brain Injury Program at the Duchess of Kent Children's Rehabilitation Hospital and the Hong Kong Children's Hospital. She is a Director of the International Brain Injury Society (IPBIS) as well as Governor of the International Brain Injury Association (IBIA).

**Objective:** To investigate changes in neurocognitive function and mental wellbeing among children and young people (CYP) during the 6 to 12 months following the onset of long COVID.

**Methods:** This is the follow-up study for CYP aged 7 to 25 years who participated in the COVID & the Young Brain Study that investigated the neuropsychological profiles of CYP with long COVID. The first neuropsychological assessment (baseline) was conducted between 2021- 2023 with the follow-up assessment conducted between 2022 – 2024 six to twelve months after the baseline assessment. The Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV) (aged 6-16) or Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV) (aged 17 or above) and the Tower of London test were administered. Mental well-being was assessed using the Depression, Anxiety and Stress Scale (DASS-21). Linear mixed model analysis was used to compare the longitudinal changes in the cognitive function and mental wellbeing between the baseline and follow-up assessments controlling for age, gender, socioeconomic status and follow-up time.

**Results:** Participants showed higher processing speed index (105.52 vs 111.26,  $p < 0.001$ ) and improved scaled score in the symbol search task (10.78 vs 12.39,  $p = 0.001$ ) within one year of the onset of long COVID. They had improved standard score in the ToL execution time (98.43 vs 107.65,  $p = 0.006$ ) and the total problem-solving time of all items (94.30 vs 100.87,  $p = 0.006$ ). Participants were found to have less anxiety (4.5 vs 2.4,  $p = 0.016$ ) and stress (6.25 vs 3.95,  $p = 0.047$ ) according to the DASS subscales.

**Conclusion:** CYP with long COVID showed significant improvements in neurocognitive function and mental well-being within one year of symptom onset. This finding highlights the importance of public policies that support timely access to healthcare, mental health services, and educational accommodations for CYP affected by long COVID.



## Quick Hit Presentation

Abstract #3

### **Recognizing signs of diabetes in children at school: Interim evaluation of the first year of implementation**

**Rayzel Shulman (The Hospital for Sick Children)**, Mikayla Sonnenberg, Zeenat Ladak, Elizabeth Cummings, Ellen Goldbloom, Mark Inman, Brett Reynolds, Jennifer Proulx, Elizabeth Moreau, Manpreet Doulla, Elizabeth Sellers, Dianne Wherrett, Patricia Li, Meranda Nakhla, Valeria Rac, Genevieve Rouleau, Jennifer Shuldiner, Celia Laur

Rayzel Shulman a pediatric endocrinologist at The Hospital for Sick Children in Toronto and Associate Professor in the Department of Pediatrics at the University of Toronto. She is a Scientist in the Child Health and Evaluative Sciences Program at the Sickkids Research Institute and an Adjunct Scientist at ICES. Her research program is focused on developing and evaluating health services interventions to improve health outcomes and the quality of care for youth living with diabetes. She holds research funding from The Canadian Institutes of Health Research (CIHR) and Diabetes Canada.

**Introduction:** 10–80% of children have diabetic ketoacidosis (DKA), a preventable life-threatening condition, at the time they are diagnosed with diabetes, and the prevalence has increased. We co-designed an intervention to prevent a delay in diagnosis, which can lead to DKA, by educating school staff to recognize signs of diabetes and to communicate the need for parents to seek prompt medical attention. The focus on public schools is deliberate to address the socioeconomic disparity in the risk of DKA. We created a 90-second video, poster, and a script for school staff to communicate with parents.

**Objective:** To evaluate the implementation of the intervention after the first of a 3-year study.

**Methods:** In 2024, 5 Canadian school boards were invited to participate. Schools showed the video and poster at an orientation session or staff meeting. Staff completed a survey within 1 week and 4–9 months later. We measured reach (did staff see the material), appropriateness (did staff learn the information), and short-term sustainability (did staff remember the material).

**Results:** 28 schools in 2 school boards (Ontario and Saskatchewan) implemented the intervention reaching 10,351 children (pre-kindergarten–grade 8). Survey #1 was completed by 453 school staff and survey #2 by 293. 4–9 months later, 86% remembered the video, 98% knew the signs of diabetes, and 94% knew what to say to parents/caregivers. Staff reported recognizing signs of diabetes in 18 children and that 1 child was ultimately diagnosed with diabetes.

**Conclusions:** Our intervention has interprovincial reach, is appropriate, and short-term awareness was sustained. By implementing in public schools, we will reach educators and caregivers of children of a range of socioeconomic status, which may help to reduce the socioeconomic disparity in risk of DKA.

## Quick Hit Presentation

Abstract #4

### Screen time and academic achievement in elementary school: A prospective cohort study

[Xuedi Li \(TARGet Kids!\)](#), Charles Keown-Stoneman, Jessica Omand, Katherine Cost, Kelly Gallagher-Mackay, Jennifer Hove, Magdalena Janus, Daphne Korczak, Jonathon Maguire, Eleanor Pullenayegum, Kimberley Tsujimoto, Leigh Vanderloo, Catherine Birken

Xuedi Li is an Epidemiologist with the TARGet Kids! research group at The Hospital for Sick Children. Using large longitudinal cohort data and quantitative methods, she is interested in studying child growth, health behaviours, and early chronic disease prevention. She is passionate about leveraging diverse datasets and maximizing the potential of data linkage to drive meaningful improvements in child health.

**Background:** Higher levels of screen use are linked to poorer education outcomes in children. The primary objective was to examine the association between different types of screen time and academic achievement in Grades 3 and 6, as measured by the Ontario provincial standardized tests.

**Methods:** A longitudinal cohort study was conducted among children in the TARGet Kids! primary care cohort in Ontario, Canada between 2008 and 2023. Participant data were linked to Grades 3 and 6 provincial annual standardized test results in reading, writing, and math from 2012 to 2023. Exposures were parent-reported child total screen time, TV/digital media time, and video gaming time, collected prior to academic achievement test. Academic achievement outcomes for Grades 3 and 6 were categorized as below, at, or above the provincial standard for each subject area. Proportional odds mixed effects models were used adjusting for confounders including key sociodemographic variables.

**Results:** This study included 3,322 Grade 3 children and 2,084 Grade 6 children (51% male). Screen use was measured at 5.5 years (SD=2.4) for Grade 3 children, with a mean of 1.6 hr/day, and at 7.5 years (SD=2.9) for Grade 6 children, with a mean of 1.8 hr/day. Each additional hour of total screen time was associated with approximately a 10% decrease in the odds of higher achievement in Grade 3 reading (OR=0.91, 0.86-0.96, p=0.001), Grade 3 math (OR=0.91, 0.86-0.96, p<.001), and Grade 6 math (OR=0.90, 0.84-0.96, p=0.002). Similarly, higher levels of TV/digital media were associated with lower achievement.

**Conclusions:** High levels of total screen time and TV/digital media were associated with lower reading and math achievement in elementary school. Our findings highlight the need to develop and test early interventions to reduce total screen time and TV/digital media exposure with the goal to improve academic achievement in elementary school.

## Quick Hit Presentation

Abstract #5

### **Complexity of interactions between the health sector, education sector, and social determinants of health: The example of pediatric emergency mental health care for suicidality**

**Matisse Blundell** (The Hospital for Sick Children), Melissa McCradden, Jamie Gibson, Jacob Vorstman, Suneeta Monga

Matisse Blundell is a PhD student co-supervised by Drs. Jacob Vorstman and Suneeta Monga. Her research focuses on children presenting to Emergency Departments for suicidal ideation and self-harm. This work uses both quantitative and qualitative methods, with the ultimate goal of improving outcomes for patients and their families.

**Introduction:** Self-harm and suicidal ideation among school-age children are pressing public health concerns. Emergency Departments (EDs) are an important point of healthcare contact for these individuals, serving as a gateway to further mental health supports or a safety net when these supports are unavailable or insufficient. Interactions with EDs are influenced by the social determinants of health (SDOH): for example, individuals who access ED care may face barriers to receiving community-based supports. In this qualitative sub-analysis, part of a larger project concerning patient experiences in EDs, we considered interactions between the health sector, education sector, and SDOH.

**Methods:** Qualitative interviews were conducted with school-aged children and caregivers who had presented to an ED for suicidal ideation or self-harm. Data were analyzed thematically. A youth advisor reviewed recruitment materials and co-designed the interview guide.

**Results:** Interviews were conducted with 43 participants: 22 school-aged children (mean age 14.5 years (range 11-17 years); 59% female, 23% gender-diverse); and 21 caregivers (91% female; six interviewed jointly with child). Participants represented a diversity of racial backgrounds (33% White, 17% Asian, 14% Middle Eastern, 10% Black, 5% Indigenous, 21% other/multiple). School was frequently described as a source of stress, and in some cases as a trigger for suicide attempt. Participants described complex interactions between the education and health sectors, including: insufficient formal mental health supports in schools, the role of schools in referring children to EDs when necessary, and the process of re-integrating into school after a psychiatric admission. Financial barriers were a frequently cited reason for inability to access community-based care, while some participants described cultural barriers to help-seeking.

**Discussion:** School-aged children presenting to EDs for suicidal ideation or self-harm may experience barriers to accessing community-based mental health care. There are opportunities for the education sector to provide more equitable mental health supports to students.

## Quick Hit Presentation

Abstract #6

### Using the Canadian Food Scoring System (CFSS) to assess and improve the nutritional quality of school food programs in Canada

[Annette Blais](#) (University of Toronto), Sarah Jeong, Mavra Ahmed, Mary L'Abbe, Daniel Sellen, Vasanti Malik

Annette Blais is a public health nutrition researcher with the Lawson Centre for Child Nutrition at the University of Toronto, specializing in school food policy and its evaluation. Her MSc thesis examined the nutritional quality, funding, and operations of Canadian school food programs, and she continues to study their implementation and impact at national and local levels.

**Introduction:** School food programs (SFPs) are an important policy tool for improving children's health, dietary habits, and academic outcomes. Despite their potential, most SFPs lack standardized tools to evaluate the nutritional quality of foods served, and while Canada's new National School Food Policy emphasizes the importance of monitoring, it does not mandate nutritional evaluation. To address this gap, we propose the Canadian Food Scoring System (CFSS), a nutrient profiling model based on Canadian labelling regulations and the 2019 Canada's Food Guide (CFG), as a policy-relevant tool to support consistent evaluation and improvement of school meal nutritional quality.

**Methods:** Menu data were collected from 70 school food providers across Canada, representing over 20% of Canadian schools. Individual food items were scored using the CFSS, and meal scores were calculated by weighting food items by their contribution to the Health Canada Reference Amount. Meals were then categorized on a five-point scale ranging from "very poor" to "excellent." CFSS scores were compared to Healthy Eating Food Index (HEFI) 2019 scores to assess alignment with dietary guidelines.

**Results:** Average CFSS scores were 65% of the maximum for breakfast, 56% for lunch, and 67% for snacks. Overall, 57% of meals and 60% of food items were classified as "good" or "excellent," while 15% of meals and 26% of food items were considered "poor" or "very poor." CFSS and HEFI scores were moderately correlated ( $r=0.67$ ), supporting CFSS as a valid measure of nutritional quality.

**Discussion/Conclusion:** The CFSS provides a standardized, scalable, and policy-aligned approach for evaluating school food nutritional quality, an important step in reducing structural inequities in access to nutritious food. As Canada moves toward a nationally harmonized approach to school feeding, tools like the CFSS can support evidence-based improvements, strengthen policy implementation, and promote healthier, more equitable outcomes for children.

## Poster Presentation

Poster #1

### **Vision care services in children with prenatal opioid exposure: A population-based cohort study**

Lauren Wilkinson (Edwin S.H. Leong Centre for Healthy Children), Andi Camden, Hilary Brown, Isobel Sharpe, Helen Dimaras, Hong Lu, Astrid Guttman

**Introduction:** Prenatal opioid exposure (POE) affects 1 in 20 births in Ontario and is associated with vision problems that vary by POE type. Despite this, there are no vision care guidelines for children with POE in Canada, and little is known about whether these children receive recommended vision care. This study aims to estimate vision care attendance rates in children up to age 8 years with and without POE.

**Methods:** We conducted a population-based cohort study in Ontario, Canada using linked administrative data for children born from 2014–2024. Children were classified as having prenatal exposure to (1) medication for opioid use disorder (MOUD), (2) 1–29 days of opioid analgesic use, (3) 30+ days of opioid analgesic use, (4) presumed unregulated opioid use, and (5) unexposed. The main outcome was receipt of vision care services, defined as  $\geq 1$  comprehensive eye examination or  $\geq 1$  ophthalmology visit. Negative binomial regression was used to generate rate ratios (RR) for the association between POE and vision care services, adjusted for clinical and sociodemographic covariates.

**Results:** Of the 1,181,611 children, 7,434 had prenatal exposure to MOUD, 33,262 to 1–29 days of opioid analgesics, 4,546 to 30+ days of opioid analgesics, 2,903 to unregulated opioids, and 1,133,466 were unexposed. Among children without POE, 41.6% received vision care services. Compared with this referent group, children with prenatal exposure to MOUD (35.9%; aRR 0.89, 95% CI 0.86–0.92), 30+ days of opioid analgesic use (44.5%; aRR 0.93, 95% CI 0.90–0.96), and unregulated opioid use (34.1%; aRR 0.89, 95% CI 0.85–0.94) had lower rates of receiving vision care services, whereas children with 1–29 days of opioid analgesic exposure (45.4%; 0.99, 95% CI 0.98–1.00) had similar rates, after adjustment.

**Discussion/Conclusion:** Low vision care rates in children with POE indicate an urgent need to revise pediatric vision screening protocols and promote early intervention.

## Poster Presentation

Poster #2

### **Feeding kids, nourishing minds: Unveiling Canada's school food landscape to advance health equity for children**

Mavra Ahmed (University of Toronto), Daniel Sellen, Nina Trask, Nicole Weber, Annette Blais, Selina Mae Quibrantar, Emily Ziraldo, Sarah (Hayun) Jeong, Chelsea McPherson

**Introduction:** Canada has taken a critical step forward with the introduction of a national school food policy, signaling growing momentum toward the development of a comprehensive school food program. While implementation remains uneven across the country, school food programs are widely recognized for their role in improving dietary intake, educational outcomes, and health equity. The Feeding Kids, Nourishing Minds (FKNM) initiative aimed to map the current school food environment and assess how physical, economic, sociocultural, and policy factors shape children's access to nutritious food at school.

**Methods:** FKNM used a multi-method, equity-focused approach, including systematic and rapid reviews, prospective cohort research, stakeholder interviews, focus groups, and national surveys. The project engaged school staff, students, caregivers, program coordinators, and policymakers across diverse Canadian contexts. Co-designed tools and participatory methods prioritized the voices of equity-deserving populations.

**Results:** Findings revealed widespread reliance on ultra-processed and prepackaged foods, with student diets often exceeding recommended sodium and sugar levels. Barriers included insufficient infrastructure, limited funding, and staffing shortages, issues exacerbated during the COVID-19 pandemic. Nonetheless, strong community engagement, local food networks, and culturally relevant programming were identified as key enablers, particularly in school settings.

**Conclusion:** This research highlights the fragmented and inequitable nature of current school food programming in Canada. By uncovering the systemic and structural challenges limiting access to healthy school meals, FKNM informs policy development toward a more coordinated, equitable, nutritionally adequate and sustainable national school food program. Investing in SFPs that are community-driven and context-responsive is essential to advancing child health and well-being across Canada.

## Poster Presentation

Poster #3

### **Can hand grip strength be measured reliably in very young children? A study of test-retest reliability**

Deena Al-Sammak (Power of Play; McMaster University), Roooda Shanshal, Alexandra Neish, Shira Miller, Tara Packham

**Introduction:** Fine motor skills like hand grip and pinch strength (HGPs) are essential for young children to perform tasks such as writing, using scissors, and managing zippers. Poor HGPs can hinder academic and social development. However, early intervention is limited by access to and the lack of validated, child-friendly tools for reliable HGPs assessment. Standard adult dynamometers are too large and unengaging, often producing inaccurate results and restricting access to timely diagnosis and therapy. To address this gap, this study examines the test-retest reliability of two alternative tools: the Squegg, a commercially available grip device, and a novel, child-friendly prototype (CFP) co-designed with pediatric therapists.

**Methods:** Two occupational therapy students collected data from 140 children (ages 43–63 months) at Little People's Daycare in Hamilton, Ontario. HGPs was measured using both devices, pinch strength was measured only with the CFP due to the Squegg's large size. Device order was randomized. Each child completed three trials per hand while seated upright with their elbow at 90°. ICC values assessed test-retest reliability, and observational data captured usability and engagement.

**Results:** For individual measurements, the CFP demonstrated good reliability (grip strength: ICC=0.87, CI [0.84,0.89], pinch strength: ICC=0.79, CI [0.75,0.83]). In comparison, the Squegg showed moderate reliability (ICC=0.57, CI [0.49,0.64]) for grip strength. Averaging three trials, the CFP's reliability improved to excellent (grip strength: ICC=0.95, CI [0.94,0.96], pinch strength: ICC=0.92, CI [0.90,0.94]). The Squegg showed good reliability for grip strength (ICC=0.80, CI [0.74,0.84]) but could not measure pinch strength. Greater engagement and enjoyment using the CFP were observed, attributed to its child friendly design and visual feedback.

**Conclusions:** HGPs has traditionally been considered difficult to measure. Preliminary testing of the CFP offers a promising, child-friendly solution. This creates an opportunity to build normative datasets, standardize assessments, and support targeted rehabilitation and physical health screening, helping children to meet developmental milestones for school and play. Qualitative insights will guide further development, and future research will inform HGPs screening practices for underserved pediatric populations.



## Poster Presentation

Poster #4

### Enhancing a sense of belonging through physical activity: “Active Community, Connected Community”

Diane Fierheller (Family and Child Health Initiative; Institute for Better Health; University of Toronto),

Gabrielle Griffith, Kristina Fuentes-Aiello, Sabrina Scarcello, Jessica Chiang, Delia Chan, Lisa Boyce-Gonsalves, Orville Edwards, Alyson Beben, Sara Abdullah, Serena Hong, Asli Nur, Ian Zenlea, Chris Markham, Tammy Shubat, Sylvie Atwill, Diane Stewart, Barbara Patten, Chantalee Dunkley, Momina Mazhar

**Introduction:** Regular physical activity is important for children, youth and families, and is one of the main recommendations for preventing chronic diseases and supporting healthy growth and development. Children who are more active in their early years tend to stay healthy and active across the lifespan and being active can encourage social interactions and relationships, such as making friends, that may help children feel a sense of belonging. While experiencing a sense of belonging is foundational to physical activity participation over time, within the 12-20 age group there is a notable drop in physical activity participation when young people feel they do not belong. Our overall project goal was to understand how to increase feelings of belonging among youth through physical activity opportunities within the Mississauga Valley's community, schools and recreation spaces.

**Methods:** Using a community-based participatory research approach, we assembled a community advisory board with a diverse group of youth, parents/caregivers, teachers, researchers, and representatives from Peel Public Health, and the City of Mississauga Recreation Department. We used photovoice methodology to explore and understand young people's experiences of belonging in relation to physical activity. Lastly, we held a community knowledge mobilization event at the local community centre to share the photovoice exhibit and generate actionable ideas with community members to promote belonging through physical activity.

**Results:** 18 youth from diverse backgrounds, between grades 4-10 developed 18 themes in total including: Nature, food, animals, religion, home country, self care, special memories with friends/family/loved ones, travel, favourite sports and fun times.

**Discussion/Conclusion:** Trust building at the neighborhood level led to strong engagement with community members, including youth and their families, and the development of ideas that can be actioned to promote belonging through physical activity. The next phase of this work will include co-designing interventions that enhance a sense of belonging through physical activity with youth, caregivers, families, community organizations, schools and policy makers, that can be adapted at a regional, provincial and national level.

## Poster Presentation

Poster #5

### **Bridging hospital, home, and school: The role of POGO interlink nurses in supporting children with cancer across the care continuum**

[Chana Korenblum](#) ([The Hospital for Sick Children](#)), Tina Hamalainen, Cory Murphy, Sara Belot, Lisa Arnott, Arvinder Aulakh, Jessica Brooks, Anna Gacsadi, Devon Williams

**Introduction:** Children with cancer face complex medical needs but also significant disruptions to education and social development. The Pediatric Oncology Group of Ontario (POGO) Interlink Nursing Program addresses these challenges by embedding specialized nurses within childhood cancer programs to support children and families across care settings. Working at the intersection of healthcare and education, POGO Interlink Nurses help mitigate social and structural determinants of health that affect school participation and long-term outcomes.

**Methods:** The province-wide initiative involves nurses bridging between hospital, home, and school, providing educational and psychosocial support. They collaborate closely with caregivers and siblings, healthcare teams (oncologists, contact nurses, social workers, psychologists, child life specialists, resource navigators, school transitions coordinators, etc.), and educators (teachers, guidance counselors, principals, and school boards) to ensure children receive support during and after treatment.

The nurses play a vital role in school reintegration, contributing to individualized education plans, advocating for accommodations, and ensuring learning continuity. They also visit classrooms to educate peers about cancer in age-appropriate ways, helping reduce stigma and foster empathy. This proactive engagement supports smoother back-to-school transitions and promotes inclusive learning environments.

**Results:** In 2024/2025, the nurses supported approximately 1,002 children and families across six partner hospitals. Validated through a point-in-time evaluation, the Program is a successful, highly valuable component of childhood cancer care, replicable across other areas of pediatric care.

**Discussion/Conclusion:** The POGO Interlink Nursing Program offers an innovative, wraparound support model integrating health and education systems to support children with cancer. A childhood cancer diagnosis and its treatment can have lifelong effects—impacting cognitive development, school achievement, and future employment. By addressing immediate and long-term educational needs, POGO Interlink Nurses help set children up for success not only during treatment, but into adulthood. This model reduces inequities and improves holistic outcomes for children and families navigating cancer care.

## Poster Presentation

Poster #6

### **Association between the timing of introducing complementary food, BMI z-score, and overweight/obesity in children aged 6 years in Hong Kong - a population-based study**

Chen Chen (The University of Hong Kong), Hung-Kwan So, Keith Tsz Suen Tung, Claudia Ching-Yan Chung, Wilfred Hing-Sang Wong, Patrick Ip

**Introduction:** The optimal timing for introducing complementary food remains unclear, though WHO guidelines propose 6 months. Limited studies investigated the timing of introducing complementary food and childhood body status, especially in Chinese children. To explore the association between the timing of introducing complementary food and BMI z-score and overweight/obesity at 6 years in full-term and pre-term children separately, with a claimed representative dataset in Hong Kong.

**Methods:** This retrospective serial cohort study analysed data from the dataset for children (n=283,064) born between 2011 and 2016. Among them, 117,167 were followed up at 6 years through the routine health check program in Hong Kong. A total of 6,280 children with timing of complementary food and BMI z-score at 6 years were included in the analysis because around 5% of the enrolled infants were randomly recorded for the interview on feeding patterns. Trained staff measured weight and height using a stadiometer and a weight scale, and BMI was calculated and converted into a BMI z-score. Demographic details and information on the timing of introducing complementary food were collected through interviews.

**Results:** Most children (68.8%) started complementary feeding at or after 6 months. The prevalence of overweight/obesity at 6 years was 12% and 6.53% respectively. Pre-term infants introduced to complementary food before 6 months had significant higher BMI z-score (uncorrected age:  $\beta=0.0473$ ,  $P = 0.0216$ ; corrected age:  $\beta = 0.0291$ ,  $P = 0.0318$ ) and greater overweight/obesity risk (OR = 2.71, 95% CI: 1.50-4.91,  $P < 0.001$ ; earliest introduction: OR=3.30, 95% CI:1.29-8.41,  $P = 0.013$ ) compared to those starting at or after 6 months.

**Conclusion:** Pre-term children should avoid starting complementary feeding before the uncorrected age < 6 months to prevent the risk of overweight/obesity in childhood. No differences in growth were observed among full-term children, introducing food before or after 6 months.

## Poster Presentation

Poster #7

### **Community rectal and stool carriage of antimicrobial resistant (AMR) extended-spectrum beta-lactamase-producing Enterobacterales (ESBL-E) in Hong Kong children**

Maxine SY Poon (The University of Hong Kong), Keith TS Tung, Hing Wai, Tsang, Natalie TY Tsie, Celine SL Chui, David C Lung, Patrick Ip

Antimicrobial resistance (AMR) poses a global threat to communities, health-care systems and economies worldwide. Children, a vulnerable social group, are potentially at higher risk of AMR infection due to weaker immune systems, increased physical skin-to-skin contact and contact with contaminated surfaces and objects during play and school time. With microbes' rapid abilities to evolve and spread with diverse routes to infect, AMR of common intestinal bacterium such as *Klebsiella pneumoniae* and *Escherichia coli* have been associated with morbidity and mortality in infected children and can act as reservoirs for potential AMR strains in healthy humans. Our study aims to investigate the carriage of AMR *E. coli* and *K. pneumoniae* of healthy children in community settings of Hong Kong.

Antibiotic susceptibility of isolated *E. coli* and *K. pneumoniae* from rectal swabs or stool samples of 397 child participants from Hong Kong Children's Hospital recruited from January 2023–October 2024 was assessed using the Kirby–Bauer disk diffusion method against carbapenem, cephalosporin and fluoroquinolone antimicrobial agents per CLSI-M100 (2024) guidelines. Zones of inhibition were measured after 16–18 hours of incubation at 37°C. Resistance was indicated by diameter following the interpretive category breakpoints per CLSI-M100 references.

206 *E. coli* and 44 *K. pneumoniae* samples were tested for antibiotic susceptibility. 21.8% of *E. coli* were extended-spectrum cephalosporin-resistant. 17.0% were fluoroquinolone-resistant and 0% were carbapenem-resistant *E. coli*. 9.1% and 2.3% of *K. pneumoniae* were extended-spectrum cephalosporin-resistant and intermediate respectively. 6.8% were fluoroquinolone-resistant *K. pneumoniae* and 2.3% were carbapenem-resistant *K. pneumoniae*.

Our study provides evidence that AMR strains of common gut bacteria can be found in children in the community. Their ability and potential to spread and cause infection in vulnerable groups in community settings is presented as a possible risk.

## Poster Presentation

Poster #8

### School readiness in very preterm infants in Ontario: A pilot database study

**Kamini Raghuram** (Mount Sinai Hospital), Nicole Bando, Magdalena Janus, Seungwoo Lee, Ashley Gaskin, Amanda Offord, Caroline Reid-Westoby, Rachel Ault, Prakeshkumar Shah

**Introduction:** Neurodevelopmental impairment (NDI) at 18–24 months corrected age (CA) in children born very preterm (VPT) is associated with school-age academic skills. Less is known about school readiness in this population. Our study objectives were: (1) to assess the feasibility of using deterministic linkage with large neonatal and educational databases, (2) to describe the school readiness profile of children born VPT and (3) to explore the association between 18–24 month developmental assessments and school readiness.

**Methods:** Very preterm children born at < 29 weeks' GA between 2009 and 2012 who completed the Bayley Scales of Infant Development at 18–24 months CA in Ontario, Canada were linked using deterministic linkage with the Early Development Instrument (EDI). School readiness in children born VPT with and without NDI was compared. The association between standardized testing at 18–24 months CA and EDI at school-age was assessed.

**Results:** Of 684 eligible infants, 112 (16%) had available EDI data, of which 50 (45%) had NDI. More than twice as many children born VPT were vulnerable in  $\geq 2$  domains (34% vs 14%,  $p < 0.0001$ ). Importantly, 35% of children without NDI still presented with vulnerability at school age. The Bayley language score was associated with vulnerability in physical health and well-being, language and cognitive development, and communication skills and general knowledge. None of the Bayley subtests were associated with emotional maturity or social competence.

**Discussion and Conclusion:** Neurodevelopmental impairment at 18–24 months was associated with all school readiness markers, while being born very preterm without NDI was still associated with vulnerability in two or more domains. Findings in this study may indicate that a focus on early language skills is needed to promote school readiness in children born very preterm. Other assessments may be needed for earlier insight into social competence and emotional maturity.

## Poster Presentation

Poster #9

### **Variation in hospital rates of follow-up care for children and adolescents discharged from psychiatric hospitalization**

Emily Hamovitch (University of Toronto; The Hospital for Sick Children), Astrid Guttman, Natasha Saunders

**Introduction:** Timely follow-up care after psychiatric hospitalization is essential to support recovery and reduce suicide risk among children and adolescents. Although clinical guidelines recommend follow-up within seven days of discharge, little is known about how access varies across hospitals and regions. This study examined both hospital-level and regional variation in 7-day follow-up care among youth discharged with anxiety, depression, or self-harm across Ontario. Such variation reflects underlying social and structural determinants of health that may contribute to inequities in mental health outcomes for children.

**Methods:** We conducted a population-based cross-sectional study using linked health administrative data housed at ICES. The cohort included children aged 5–17 discharged from hospitalization with a diagnosis of anxiety, depression, or self-harm. The outcome was a follow-up visit with a family physician, pediatrician, or psychiatrist within seven days of discharge. We calculated age- and sex-standardized follow-up rates for each hospital and created funnel plots to examine variation by discharge volume. Hospitals with follow-up rates above or below the 95% control limits were classified as outliers, representing hospitals with high or low rates of follow-up care, respectively. Hospitals were also categorized by health region and population centre size.

**Results:** Among 6,783 youth discharged from 43 hospitals, the average 7-day follow-up rate was 27.3%, ranging from 2.7% to 71.0%. Ten hospitals (23%) were classified as high outliers, and ten (23%) as low outliers. High outlier hospitals were predominantly located in large urban centres and the Toronto/West regions, while low outliers were concentrated in smaller population centres and the North.

**Conclusion:** Marked disparities in follow-up care across hospitals and regions raise equity concerns for children discharged from psychiatric hospitalization. Findings support the need for targeted, system-level interventions to ensure timely and equitable access to mental health care across hospitals and geographic settings.

## Poster Presentation

Poster #10

### **Nourishing Black children: Facilitators and barriers to culturally responsive school food programs in Toronto**

[Asma Musa \(University of Toronto\)](#), Daniel Sellen, Mavra Ahmed

**Background:** Black children in Toronto disproportionately experience food insecurity, yet school food programs (SFPs) often overlook their cultural dietary needs. This misalignment results in reduced participation, increased stigma, and missed nutritional and academic benefits. SFPs have the potential to address access to nutritious food, but culturally inclusive policies remain limited despite mounting evidence that such alignment improves student outcomes. This study aims to identify facilitators and barriers to implementing a culturally responsive SFP.

**Hypothesis:** A school food intervention co-designed with Black students, caregivers, and community food leaders will (i) increase program participation and household food security and (ii) lead to measurable improvements in diet quality and academic achievement.

**Methods:** Grounded in Critical Race Theory, Black food sovereignty, and implementation science, this project is part of a three-phase, mixed-methods design. This study will explore lived experiences with SFPs to inform culturally relevant intervention design, using focus groups and interviews with students, care givers, educators and community leaders.

**Results:** While data collection with Black stakeholders is forthcoming, preliminary insights from a diverse group of school food program coordinators and students highlight strong community engagement as a key facilitator of successful culturally responsive implementation. Uptake and sustainability are enhanced by supportive school leadership, culturally responsive staff, flexible procurement policies, and incorporation of food into cultural education and curricula. Barriers include lack of centralized systems, limited menu diversity, inadequate kitchen infrastructure and staffing and insufficient funding for culturally appropriate options. The absence of clear policy mandates and accountability structures further limits consistent implementation across schools.

**Identified Gaps:** No Canadian study has simultaneously interrogated cultural relevance, structural racism, and implementation feasibility within school food systems serving Black children.

**Significance:** This study will generate the first actionable evidence on culturally responsive SFPs and equip policymakers to scale equity-driven solutions for Black students across Ontario and beyond.



## Poster Presentation

Poster #11

### **The health of international students in Canada (2013–2024): A scoping review of peer-reviewed and grey literature**

[Diane Balkaran](#) (Edwin S.H. Leong Centre for Healthy Children), [Ally Lucchese](#) (Edwin S.H. Leong Centre for Healthy Children), Emilie Terebessy, Manvir Bhangu, Arjumand Siddiqi, Ananya Banerjee, Padmini Thakore, Astrid Guttman, Susitha Wanigaratne

**Introduction:** In the last 20 years, the number of international students (IS) has risen substantially. In Canada, community organizations and the media have raised concerns about the challenges IS face, highlighting the need to better understand their health. In collaboration with a community partner (Laadliyan), this scoping review explores IS health in Canada, focusing on eligibility for publicly funded healthcare, health outcomes and healthcare services, and the social and structural determinants of health (SSDOH).

**Methods:** We registered a protocol, followed the Joanna Briggs Institute methodology for scoping reviews, and completed the PRISMA-ScR checklist. Peer-reviewed and grey literature on IS in Canada from 2013–2024 was included. Peer-reviewed studies were identified through systematic database searches, and two reviewers screened for eligibility and relevance. Grey literature was retrieved through targeted Google searches and screened for relevance. Data was extracted, and descriptive statistics and narrative summaries were produced.

**Results:** IS in Ontario, Manitoba, and the Yukon, and some in Quebec, are not eligible for publicly funded healthcare, and require private coverage. Among 25 peer-reviewed studies, mental health and healthcare services were the most frequently mentioned while the grey literature (n=30) emphasized mental health, violence, and mortality. Quantitative studies focusing on mental health found better outcomes among IS compared to domestic students; one study highlighted more self-harm and suicide attempts. Qualitative studies reported more often on the SSDOH than quantitative studies, and highlighted that the social environment, language and cultural differences, and aspects of employment/income contributed to the mental health challenges faced by IS.

**Conclusion:** Provincial healthcare eligibility for all IS may improve access to healthcare. Differing cultural understandings of mental health and stigma may have influenced how the diverse IS population reported their experiences in this review's studies. Tailored and culturally safe campus mental health supports are needed, along with large scale, representative studies.

## Poster Presentation

Poster #12

### Early childhood cognition as a predictor of academic performance in the adolescent brain cognitive development study

Anett Schumacher (The Hospital for Sick Children), Eric Tu, Samantha Burns, Daphne Korczak

**Background:** Evidence suggests that cognition is associated with academic performance in children and adolescents. However, the role of childhood cognitive function on future academic performance is unclear. This study examines the temporal relationship between cognitive function and subsequent academic performance among participants in the Adolescent Brain Cognitive Development Study.

**Methods:** Adolescents were recruited from community settings and completed assessment of cognitive function across six cognitive domains (working memory, long-term memory, attention, executive function, processing speed, language) in grade 5. Academic performance was assessed at grade 7 and grade 9, using parent-reported measures. The relationship between cognitive function and academic performance was examined using structural equation modeling, controlling for child age, sex, race/ethnicity, mental health diagnosis, parental education, and family income.

**Results:** Participants ( $n=3,914$ ) had a mean age of  $10.0 \pm 0.6$  years, and 48% were female. Cognitive function across all domains in grade 5 positively predicted academic performance in grade 7 (all  $\beta$ s 0.05 – 0.19). Long-term memory in grade 5 positively predicted academic performance in grade 9 ( $\beta = 0.03$ ). Academic performance in grade 7 mediated the relationship between cognitive function in grade 5 and academic performance in grade 9 (all  $\beta$ s 0.03 – 0.11).

**Conclusions:** In this community-based sample of adolescents, early childhood cognition directly predicted middle school academic performance and indirectly affected high school academic performance. Early identification of individual cognitive abilities as well as early academic support in elementary/middle school may support prevention of poor academic outcomes in high school.

## Poster Presentation

Poster #13

### **The association between learning format during the COVID-19 pandemic, mental health symptoms, and parent-reported school performance in kindergarten and grades 1-12**

**Jessica Omand** (Toronto Metropolitan University), Piyumi Mudiyansele, Xuedi Li, Charles Keown-Stoneman, Theresa Shume, Laura Anderson, Jonathon Maguire, Magdalena Janus, Barbara Fallon, Kimberly Tsujimoto, Katherine Cost, Alice Charach, Jennifer Crosbie, Evdokia Anagnostou, Daphne Korczak, Suneeta Monga, Elizabeth Kelley, Christie Burton, Rob Nicolson, Catherine Birken

**Introduction:** during COVID-19, many children attended school virtually as a disease containment strategy. This study examined whether learning format (virtual vs. in-person/mixed) was associated with parent-reported school performance in children from kindergarten to grade 12. We also assessed whether household income modified this relationship and whether mental health symptoms mediated the association.

**Methods:** Children aged 4–18 were recruited between November 2020 and April 2022 in Ontario through four cohorts: TARGet Kids!, Spit for Science, Province of Ontario Neurodevelopmental Disorders Network, and SickKids Psychiatry. Parents completed repeated surveys reporting learning format, and school performance based on the most recent report card. Generalized linear mixed models were used for overall scores and proportional-odds models for subject-specific grades. Effect modification by income was tested through interaction terms, and mediation by depressive and inattentive symptoms was assessed through parallel mediation analysis.

**Results:** Data from 1266 children (2821 observations) were analyzed; 52% were male, and 24% participated in virtual learning. The mean age of the kindergarten group was 5.3 years (0.6 SD) and 10 years (2.8 SD) in grades 1–12. Virtual learning was linked to lower overall report card scores in kindergarten (−0.18; 95% CI: −0.3, −0.05), but not in grades 1–12 (−0.04; 95% CI: −0.08, 0.004). In kindergarten, students in virtual learning had higher odds of receiving lower marks in ‘self-regulation and well-being’ and ‘belonging and contributing’. In grades 1–12, lower scores were observed only in the ‘Health and Physical Education’ subject for virtual learners. Family income did not modify these associations, and mental health symptoms did not mediate them.

**Conclusion:** Virtual learning during COVID-19 was associated with lower school performance in kindergarten but had limited impact in older grades. These findings align with concerns about young children’s engagement in virtual settings and may inform recovery strategies for improving education outcomes post pandemic.

## Poster Presentation

Poster #14

### **Sex-specific associations between sense of family belonging and perceived emotional connection with parents and blood biomarkers of inflammation in Chinese adolescents**

Rosa Wong (The Education University of Hong Kong), Keith Tung, Patrick Ip

**Introduction:** Early exposure to family adversity is associated with chronic inflammation, which may explain poorer health. According to differential susceptibility theories, some individuals who are more vulnerable to negative environments are also more responsive to positive influences. While family support and interactions are generally beneficial, their effects can vary depending on the developmental stage and the level of support. Overprotective parenting, where parents are overly involved in their children's lives, may harm adolescents' well-being and development, yet few studies have examined this. In this study, we investigated whether there are sex-specific associations between perceptions of parental affective behaviors and family interaction quality and blood biomarkers of inflammation in Chinese adolescents.

**Methods:** Using blood samples from a longitudinal cohort of 169 male and 137 female adolescents from Hong Kong (average age: 13.35 years), we explored whether sense of family belonging moderated the association between perceptions of parental love and warmth and inflammatory biomarkers, interleukin-6 (IL-6) and interleukin-10 (IL-10), in both boys and girls. These inflammatory biomarker values were log-transformed. Correlation and moderation analyses were conducted to examine the associations adjusting for age and monthly family income.

**Results:** In girls, the sense of family belonging significantly moderated the association between perceived parental warmth and levels of IL-6 ( $\beta = 0.03$ ,  $p = .024$ ) and IL-10 ( $\beta = 0.04$ ,  $p = .004$ ). Specifically, girls who frequently felt valued by their family showed higher IL-6 and IL-10 levels when they also perceived greater parental warmth. These patterns were not observed in boys.

**Conclusion:** Our results highlight that parents should provide support and care while also respecting the boundaries necessary for adolescents to develop their personal interests and strengths. Overly involved and emotionally intense caregiving can place a strain on adolescents, particularly girls who may be more sensitive to emotional cues, potentially leading to increased inflammation.

## Poster Presentation

Poster #15

### **Association between teacher competencies and social-emotional learning in the classroom**

Erin Knobl (Brock University), Naomi Andrews

**Introduction:** Social-emotional learning (SEL) in the classroom has been shown to increase academic performance and decrease behavioural challenges. Teachers' beliefs and understanding of SEL play an important role in program delivery. We examine teachers' knowledge and frequency of, and confidence in delivering social-emotional programming, and its impact on student outcomes (academic performance, classroom climate, motivation, SEL skills, and expectations).

**Methods:** We surveyed 201 Catholic elementary teachers across Ontario using several Likert rating scales related to social-emotional learning. Teachers reported on their knowledge, confidence, and frequency of teaching across six SEL domains. The six SEL domains were: identifying emotions, stress management and coping, executive function, self-awareness and identity, positive motivation and perseverance, and healthy relationships. Teachers also reported on their perceptions of student academic performance, classroom climate, school motivation and engagement, student SEL skills, and student expectations (e.g., communication, lifelong learning, collaboration, thinking, caregiving, and citizenship).

**Results:** Regression analyses indicated that teachers' confidence in delivering SEL instruction predicted student SEL ( $B = .21, p < .001$ ), student expectations ( $B = .15, p = 0.003$ ), and classroom climate ( $B = .12, p = .014$ ), but teachers' knowledge and frequency of SEL did not predict student outcomes. No significant results were found for academic performance or student motivation.

**Discussion/Conclusion:** Results suggest that teacher confidence in teaching social-emotional skills appears to be the most important factor in determining student outcomes. Therefore, policy and professional continuing education should focus on teachers' confidence in teaching SEL. Future research is warranted to determine the mechanisms for increasing teachers' confidence in teaching social-emotional learning to best support student SEL skills and classroom climate. Identifying teacher confidence as an important mechanism towards improved classroom climate and student SEL is an important first step towards improving the wellbeing of children and creating a positive learning environment.

## Poster Presentation

Poster #16

### **Building employment skills and expectations for youth with intellectual and developmental disabilities and their families through Project SEARCH Toronto: A case study**

[Laura Bowman](#) ([Holland Bloorview Kids Rehabilitation Hospital](#)), Anna Oh, Carolyn McDougal, Amy Spear, Allan Easton, Molly Michels, Kari Renahan

**Introduction:** Meaningful and gainful employment is a social determinant of health connected to financial, social, and cultural wellbeing and general quality of life. For individuals with intellectual and developmental disabilities (IDD), access to employment is fraught with cultural, attitudinal, educational, and environmental barriers. People with IDD are best able to attach to the workforce when they gain supported work experiences starting in high school. To facilitate successful programs that connect high school aged students with employment, we sought to understand the experiences of students and families who have participated in one such program, Project SEARCH. Project SEARCH is a licensed and evidence-based model. In this study, we explored the elements that made this program most meaningful to them as they transitioned from school to work.

**Methods:** Using a case study methodology, we conducted interviews, observations, and document reviews over a period of 17 months. Data was analyzed thematically to understand student/family member perspectives. The study team included clinical and lived experience perspectives.

**Results:** Results reflected three preliminary themes: (1) expectations versus experience (student/family reflections on changes in abilities, achievements toward independence and responsibility throughout the program); (2) growth and satisfaction (meaningful program aspects for students/families, including independence and sense of belonging, and areas of growth, such as maturity, workplace skills, confidence); and (3) external factors impacting program outcomes (program structure, importance of job coaching).

**Discussion/Conclusions:** During and following the intensive school-to-work transition program, students with IDD and their families found meaning and growth in skills, experiences, and expectations related to employment. This study provides clarity on the program elements that stand out as relevant to students and families, and how rehabilitation, employment services, and education sectors can collaborate to facilitate meaningful experiences to support transitions to employment for youth with IDD.

## Poster Presentation

Poster #17

### **Investigation of the immunological responses to seasonal influenza vaccine (SIV) in children and adolescents in Hong Kong**

Keith T.S. Tung (The University of Hong Kong), Gilbert T. Chua, Hing Wai Tsang, Rosa S. Wong, Patrick Ip

**Introduction:** Influenza virus infections pose substantial risk of morbidity and mortality globally. While vaccination is a key strategy to prevent illness and transmission, variability was observed between individuals regarding their immunological responses towards vaccination. Approximately 10% of individuals display non-responsiveness towards routine vaccination, in which prevalence might be even higher in high-risk populations such as children. This study aimed to assess non-responder rate among paediatric population in Hong Kong.

**Methods:** Children and adolescents between 8 and 18 years old were recruited at primary and secondary schools. All subjects received 0.5ml quadrivalent SIV, which contains 15micrograms hemagglutinin of each influenza strain. At day 21 post-vaccination, peripheral blood samples were collected to determine the post-vaccination Haemagglutination inhibition (HAI) titers against four strains, influenza B Yamagata, Victoria, Influenza A H1N1 and H3N2 strains. Subjects with HAI titers failing to reach above 40HAU were considered as potential SIV non-responders.

**Results:** A total of 1442 subjects were recruited from 9 primary and 19 secondary schools, with a mean age of 13.8 years. About 50.5% of the subjects were boys. Based on the HAI titer against influenza B Yamagata strain, the prevalence of preliminary SIV non-responder rate is 16.4% (236 out of 1,442) in children and adolescents in Hong Kong. 16 of the subjects were found to have HAI titers less than or equal to 40HAU against all fours tested strains. Comparative analyses indicated that the SIV non-responsiveness was more prevalent among primary school aged children ( $p<0.001$ ).

**Conclusions:** This study indicated that 16% of children and adolescents in Hong Kong are potentially non-responders towards influenza vaccine, which highlights the importance of identifying this group of children that could be vulnerable to influenza and its complications. Further research is needed to investigate how to improve the immunological responses among this vulnerable group.



## Poster Presentation

Poster #18

### **The IgG3-Complement C5a-NK cell axis in vaccine-related myocarditis: Insights for safer mRNA vaccines in children**

Hing Wai Tsang (The University of Hong Kong), Gilbert T. Chua, Keith Tsz Suen Tung, Dicky Yu Tak Chan, Mike Yat Wah Kwan, Patrick Ip

**Introduction:** While mRNA vaccines have proven effective against SARS-CoV-2, the occurrence of adverse side effects following mass vaccination during the pandemic has affected public confidence in vaccination programs. As mRNA technology holds great potential as a versatile platform for future vaccines, it is essential to thoroughly investigate the underlying mechanisms of the adverse side effects, which have been found to be particularly prevalent in children and adolescents. This study aims not only to advance scientific understanding but also to suggest children-specific vaccine modifications for future mRNA vaccines

**Methods:** We enrolled a representative cohort of 60 Chinese adolescents (aged 12–17 years) diagnosed with myocarditis, at a median of 3 days following BNT162b2 vaccination between 2021 and 2022. Analyses of biological samples included immunoglobulin subtypes, complement protein levels, immunophenotyping, and genotyping, which were compared to those from 20 vaccinated controls without myocarditis.

**Results:** Elevated IgG3 levels contribute to enhanced complement activity, promoting hyperinflammation and overactivation of natural killer (NK) cells in vaccine-related myocarditis. Patients showed higher IgG3 concentrations than controls, correlating positively with serum C5a, soluble C5b-9 complexes, and pro-inflammatory cytokines such as IL-8, IL-12, and IL-18, which activate NK cells. A notable increase in C5a receptor (C5aR) expression was observed on overactivated NK cells, intensifying C5a's effects, as indicated by its positive correlation with cardiac troponin T levels. Additionally, the C5rs17611C allele was identified as a genetic risk factor linked to elevated troponin T in affected individuals.

**Conclusion:** The IgG3-complement C5a-NK cell axis plays a key role in mediating adverse immune responses in mRNA COVID-19 vaccine-related myocarditis. This study highlights a potential target for future vaccine development to reduce such side effects by modulating this pathway. These advancements could improve vaccine safety, restore public confidence, and ensure better protection against infectious diseases in children, ultimately balancing benefits and risks effectively.

## Poster Presentation

Poster #19

### **Protecting children online: A comparative analysis of international legislative approaches**

Teerkasha Baskaran (The Hospital for Sick Children)

Children and youth are increasingly exposed to physical, mental, and developmental harms in an unregulated digital environment. As Canada lags behind global peers in implementing federal online safety legislation, this research explores international legislative approaches to address online harms.

A comparative policy analysis was conducted across 11 international jurisdictions, including the European Union (27 member states), United Kingdom, Ireland, Slovakia, France, Germany, Australia, New Zealand, Fiji, South Africa, and South Korea. These jurisdictions were selected based on their membership or observer status in the Global Online Safety Regulatory Network.

Three dominant policy approaches emerged: content-based, age-based, and design-based. Most jurisdictions have established independent online safety regulators with a wide scope of regulated entities. Content-based approaches were universally adopted, requiring either platforms or regulators to remove harmful content. Age-based approach involves age-specific restrictions, minimum age requirements, effective platform bans, and enforcement via age-assurance. Some jurisdictions have opted to increase the minimum age for platform access. However, effective implementation remains contingent on the development of age-assurance technologies and standards, which are currently underway. Design-based approaches go further, mandating platforms to proactively embed safety and well-being into their design. This is enforced through legal obligations such as a duty of care, due diligence requirements, and enforceable codes of practice. Collectively, these jurisdictions reflect a global shift toward comprehensive, enforceable, and safety-by-design protections for young users.

Canada has a timely opportunity to align with international best practices by establishing an independent online safety regulator with strong enforcement powers and a clear child protection mandate. Effective legislation should impose a duty of care on platforms, supported by enforceable codes of practice with youth-specific safeguards. As digital platforms continue to profit from children's attention, urgent action is needed—guided by evidence and the leadership of Canada's pediatric health community.

## Poster Presentation

Poster #20

### **Disparities in chronic disease burden in youth with disabilities: A population-based birth cohort study**

Fareha Nishat (University of Toronto), Alene Toulany, Hailey Banack, Anjie Huang, Kinwah Fung, Hilary Brown

**Introduction:** Youth with disabilities may be at elevated risk of developing chronic diseases due to social and healthcare inequities. This study aims to describe chronic disease burden among youth with and without disabilities using a population-based birth cohort.

**Methods:** Health administrative data was used to follow children born in Ontario between 1993–2013 up to March 2023. Physical, visual, auditory, and developmental disability was ascertained using the Children with Disabilities Algorithm. Twenty-three chronic physical and psychiatric diseases were identified using validated algorithms. A multistate framework was used to define chronic disease accumulation (0, 1, 2,  $\geq 3$ ) as such the outcome of interest was not condition specific. Multistate analysis is forthcoming and will be used to determine the rate of chronic disease accumulation by disability status.

**Results:** Of the 2.39 million youth included, 18% (425,101) had a disability. Males comprised of 58% of youth with disabilities and 50% of youth without disabilities. Median follow-up time was 21.9 years (IQR: 16.8 – 26.3) for youth with disabilities and 19.3 years (IQR: 14.5 – 24.8) for youth without. The death rate was low, at 1.3% for youth with disabilities and 0.70% in youth without disabilities. The median age of disability onset was 8 years (IQR: 3 – 15). At the end of follow-up, 79% of youth with disabilities had at least one chronic disease, compared to 58% of youth without. Asthma (31%), other non-psychotic conditions (27%), and mood and anxiety disorders (21%) accounted for nearly 80% of first chronic disease diagnoses. Multimorbidity was common, with 23% of youth with disabilities accumulating 2 chronic diseases, and 28% accumulating  $\geq 3$  chronic diseases, compared to 16% and 12% respectively in youth without disabilities.

**Conclusion:** Youth with disabilities are more likely to develop chronic disease highlighting the need for tailored monitoring and coordinated care efforts that move beyond a single-disease focus.

## Poster Presentation

Poster #21

### Examining the partisan dynamics of school food in Canada

[Benjamin Organ](#) (University of Toronto), Emily Martin, Mavra Ahmed, Daniel Sellen,

**Introduction:** After decades of advocacy, research, and protracted policy developments, the implementation of Canada's first National School Food Program (NSFP) is underway. While widely supported by key stakeholders, its progression is influenced by the political landscape and partisan dynamics. This is evident in parliamentary voting records and proceedings, with Bill C-322 as a notable example. However, no study has examined these partisan ties or their influence on school food policy. As such, the objective is to identify and explore the partisan perspectives and priorities shaping the future of Canadian school food policy.

**Methods:** A mixed-methods approach was used to analyze publicly available government records. Quantitative analysis examined federal voting records on bills related to school food and child nutrition. Relevant House of Commons (HoC) proceedings (n=336) underwent content analysis to quantify partisan trends and identify key themes of partisan behaviour and framing.

**Results:** Voting records reveal stark partisan divisions on school food in Canada. For Bill C-322, an Act to create a NSFP, liberalist parties were unanimously supportive, while conservatives opposed. HoC transcripts mirrored these trends. Liberalist parties emphasized program impacts and their role in alleviating pressures on Canadians. In contrast, opposing parties highlighted concerns over economic mismanagement, federal overreach, and threats to regional autonomy. Shared priorities among all parties present opportunities to build consensus, while opposing positions enable the development of balanced policy design and implementation.

**Discussion:** Findings reveal critical partisan dynamics behind Canada's NSFP, offering insights to policymakers, advocates, researchers and stakeholders. Data highlight the interplay between health equity priorities and economic considerations in school food policy, contributing to discussions on the role of a NSFP in Canada. These findings have significant implications for communication and consensus-building, paving the way for enhanced program support, effective implementation, and a school food system that benefits children for generations to come.

## Poster Presentation

Poster #22

### Exploring the use of trigger warnings on self-harm and suicide-related content on TikTok

Nicole Coman (University of Toronto; Sunnybrook Research Institute), Alessia Cataudella, Rachel Lebovic, Simran Dhaliwal, Rachel Mitchell

**Introduction:** Self-harm and suicide are growing concerns among Canadian adolescents, with social media platforms like TikTok playing a large role in shaping mental health experiences. Exposure to potentially dangerous or harmful content is a downstream consequence of broader social and structural determinants of health, including unregulated digital environments and lack of platform accountability. Trigger warnings (TWs) aim to protect viewers from this distressing content, however, their effectiveness remains unclear. Further, the majority of TW research focuses on viewer experiences rather than the creator's usage of these warnings. This study explores how TWs are used in suicide and self-harm-related TikToks, whether they influence engagement, and how content differs with and without TWs.

**Methods:** A purposeful sample of 102 TikTok videos (51 with TWs, 51 without) was collected by searching videos under “#sh” on a factory reset device. Engagement metrics (views, likes, comments, shares, and bookmarks) were extracted from each video along with the TW formats used (in caption, text on screen, verbal, hashtag, etc). Videos were then characterized using a content analysis to assess differences between groups.

**Results:** TWs were inconsistently applied to TikTok videos in various formats. Preliminary analyses suggest that videos without TWs had significantly higher engagement across all metrics. A content analysis is currently being conducted, and results will be available at the time of the symposium.

**Discussion/Conclusion:** Contrary to expectations, videos without TWs had significantly higher engagement than those with TWs. This suggests that content lacking warnings may be more widely promoted by the algorithm or more appealing to viewers, raising concerns about the visibility of potentially harmful material. The inconsistent and vague application of TWs further limits their potential protective value. These findings highlight the need for clearer content moderation strategies and youth-informed digital policies.

## Poster Presentation

Poster #23

### Evaluating the effects of a provincial virtual care program on pediatric post-discharge follow-up trends

David D'Arienzo (University of Toronto), Sanjay Mahant, Peter Austin, Yulika Yoshida-Montezuma, Astrid Guttman

**Background:** Timely follow up after pediatric hospitalization is critical to support safe discharge; however, there are many barriers to attending in-person visits. While virtual care offers a potential solution, concerns remain about its uptake and equitable access.

**Objective:** We examined whether the introduction a provincial virtual care program, characterized by the implementation of new virtual care physician billing codes, was associated with changes in the rate of timely post-discharge follow up and if the effects vary across hospitalization type and equity factors.

**Methods:** This was a population-based, repeated cross sectional study between March 1st, 2011 to June 30th, 2024. An interrupted time series analysis, using ARIMA models, was conducted. Using administrative data, we identified all provincially insured children 0-18 years old discharged home following an unplanned hospitalization in Ontario, Canada. The primary exposure was the implementation of the provincial virtual care program (instituted December 1st, 2022). The primary outcome was the monthly rate of physician follow up within 7-days of hospital discharge.

**Results:** The study included 730,161 hospital discharges across 517,994 children. Before the provincial virtual care program, 41% of hospitalized children received follow up within 7 days of discharge, compared to 40% after implementation. Follow up was lowest during the virtual care era among rural (30%) and most materially deprived populations (38%).

There was no significant change in slope (0.40,  $p=0.11$ ) or level (2.85,  $p=0.19$ ) of follow up rate after the virtual care program implementation. Furthermore, there was no clinically meaningful change in slope or level of follow up rates when stratified by hospitalization type, rurality or material resources.

**Conclusions:** A virtual care program, which instituted virtual care billing codes, did not lead to a meaningful increase in the rate of timely follow up after pediatric hospitalization, nor did it narrow geographic and socioeconomic disparities in post-discharge follow up.

## Poster Presentation

Poster #24

### Leveraging school-based targets to address the impact of screen use on child and youth mental health

Kimberly Tsujimoto (The Hospital for Sick Children), Evdokia Anagnostou, Catherine Birken, Alice Charach, Katherine Cost, Julia Frei, Elizabeth Kelley, Jonathon Maguire, Elisabetta Trinari, Suneeta Monga, Jennifer Crosbie, Daphne Korczak

**Background:** Decreasing screen use has become a putative intervention target to improve worsening child and youth mental health (MH), but the mechanisms by which screen use is associated with child and youth MH are understudied. Sense of belonging and ensuring children feel safe at school are two potentially important factors in these pathways. This study examined temporal associations between screen use and child and youth MH, and the mediating roles of belonging and safety at school.

**Methods:** Participants were 1,125 children and adolescents (Mage.enrollment= 10.24 years) recruited from community and clinical settings. Parents of children 6–18 years and adolescents 10–18 years completed online prospective surveys about screen use, school belonging and safety, validated measures of internalizing (depression, anxiety) and externalizing (irritability, inattention, hyperactivity) MH symptoms. Longitudinal associations between screen use (2023) and MH one year later (2024), including the mediating roles of belonging and safety were examined. All models controlled for child demographics (age, sex, race/ethnicity, family income) and prior MH/neurodevelopmental disorder (NDD).

**Results:** Greater total screen use was directly associated with lower sense of belonging ( $B = -.24, CI[-.35, -.13]$ ;  $B = -.33, CI[-.48, -.19]$ ) and safety ( $B = -.13, CI[-.24, -.01]$ ;  $B = -.32, CI[-.47, -.17]$ ) among parent- and youth-reports, respectively. Greater screen use was associated with greater internalizing and externalizing MH symptom severity one year later via the impact on school belonging, with consistent findings across parent- and youth-reports (range  $B = .07, CI[.03, .10]$  to  $B = .15, CI[.06, .23]$ ). Direct associations between screen use and children's MH were initially observed, but not sustained when covariates were included.

**Implications:** Greater screen use may be associated with poorer child and adolescent MH in part due to its negative effect on sense of belonging at school. Efforts to reduce screen use may be bolstered by school-based investments that prioritize sense of belonging to optimize impacts on child and youth MH.



## Poster Presentation

Poster #25

### Estimating the economic impact of reducing geographical disparities in pediatric cancer care

Chaoran Dong (The Hospital for Sick Children), Paul Gibson, Sumit Gupta, Erjia Ge, Maria Chiu, Petros Pechlivanoglou

**Purpose:** This study aims to assess the impact of the Pediatric Oncology Group of Ontario (POGO) Satellite Program, a network of Satellite Centres linked with tertiary units, in reducing geographical disparities and economic burdens, particularly for rural and remote families in Ontario, Canada.

**Methods:** Patients aged 0–18 years diagnosed with cancer between 2018 and 2023 who visited any of the eight Satellite Centres before September 2024 were identified using POGO registries. The cohort was compared to a hypothetical scenario where patients received equivalent care at referred tertiary hospitals. The shortest travel time and distances from residences to Centres/hospitals were estimated. Baseline characteristics of the cohort were compared with those of patients who never visited any Satellite Centre. Visit-level and patient-level costs saved were calculated summarizing transportation, accommodation, childcare expenses, and income loss due to missing work/leisure. Generalized estimating equations were performed to examine the association between cost differences and patient demographics, cancer type, and area-based measures of rurality and socioeconomic status (SES).

**Results:** Among identified patients (n=843), 57.9% had hematologic cancers, significantly higher than the 37.9% among patients who never attended a Satellite Centre. Rural/remote residence did not differ significantly between groups (9.1% vs. 10.0%). Households in the Satellite Cohort were less likely to be from the most socioeconomically disadvantaged areas, as indicated by income and marginalization. Each Satellite Centre visit reduced median travel time by 1.0 hour (IQR:0.6–2.8), distance by 72 kilometers (IQR:41–207), and cost by \$56 (IQR:34–148) compared to the hypothetical scenario of no Satellite Centre. For each visit, income loss (\$33, 58.9%) and additional childcare costs (\$17, 30.4%) accounted for the largest proportion of cost savings. A median cost of \$1,559 (IQR:478–3,840) was saved per patient. Patients from more marginalized neighborhoods saved more costs from Satellite Centre visits. Patients living in suburbs or remote/rural areas saved \$249 and \$320 per visit, respectively, compared to urban patients. No statistically significant associations were observed between cost difference and patient age at diagnosis, sex, disease type, and diagnosis year.

**Conclusions:** The Satellite Program is associated with time- and cost-savings for families of children with cancer, particularly for those in suburban, remote/rural areas, and lower SES areas, though these areas remained underrepresented. Similar programs may be justified in other jurisdictions.

## Poster Presentation

Poster #26

### **The association between the introduction of virtual care and follow-up mental health care among youth whose first mental health contact was through the emergency department or hospital**

**Erica Wennberg** (University of Toronto), Aditi Patrikar, Peter Austin, Paul Kurdyak, Katherine Nelson, Amreen Babujee, Astrid Guttman

**Background:** Timely follow-up is crucial for youth whose first mental health contact is through an emergency department (ED) visit or hospital admission; virtual care could facilitate this. We examined the association between the introduction of virtual care in Ontario and rates of follow-up mental health care for these youth.

**Methods:** We conducted a population-based repeated cross-sectional study using linked health administrative databases. We identified youth (10–24 years old) with an ED or hospital first contact visit for self-harm, a mood disorder, or psychosis between 1/Mar/2009 and 29/Feb/2024. Virtual care was introduced through temporary (Jun/2020–Nov/2022) and permanent billing codes (Dec/2022–present) (TBCs and PBCs). ARIMA analyses produced level and slope changes (vs pre-virtual care) in age-sex standardized monthly rates of 7-day mental health follow-up. Subgroup analyses examined rural versus urban and lower versus higher material resource areas.

**Results:** We identified 42,208 first contact ED visits and 17,701 first contact hospital admissions. Pre-virtual care, mean follow-up rates were 17.6 [SD: 2.97] and 21.9 [SD: 5.05] per 100. TBC introduction was associated with immediate increases in follow-up that subsequently declined (level changes: 4.81, 95% CI: 2.82 to 6.81 and 7.51, 95% CI: 4.41 to 10.60; slope changes: -0.31, 95% CI: -0.42 to -0.21 and -0.32, 95% CI: -0.48 to -0.15). PBC introduction was associated with an immediate decrease in ED visit follow-up (-3.81, 95% CI: -6.70 to -0.92) and no other significant changes. Subgroup analyses showed an immediate follow-up decrease with PBC introduction in rural (-1.06, 95% CI: -1.93 to -0.184) but not urban (0.44, 95% CI: -0.179 to 1.06) areas and consistently lower follow-up in rural and lower material resource areas.

**Conclusions:** Virtual care introduction was not associated with sustained changes or equity improvements in follow-up for high-risk first contact mental health presentations; temporary changes observed were likely related to the COVID-19 pandemic.

## Poster Presentation

Poster #27

### Effectiveness of a community lifestyle modification intervention on children's behaviour among low-income families in Hong Kong

Ching Yan (Claudia) Chung (The University of Hong Kong), RSM Wong, ANN Hui, Kerry Lee, EYH Lau, LCS Yam, AHK Cheung, LHT Louie, Patrick Ip

**Introduction:** Unhealthy lifestyle behaviours in early childhood, particularly among socioeconomically disadvantaged populations, are associated with physical health risks and behavioural problems. The KeySteps@JC 2.0 Lifestyle Modification (LSM) Program implements theory-based and practical sessions to empower families in establishing sustainable health habits. This study evaluates the program's effectiveness in reducing behavioural problems among preschool children from low-income families in Hong Kong.

**Methods:** This prospective cohort study was conducted between Sep/2023 and Oct/2024. Preschool children aged 2 to 5 from kindergartens in low-resource districts were recruited. The LSM intervention was implemented during the transition period between kindergarten grade 1 (K1) and grade 2 (K2). Behavioural outcomes were measured using the Strengths and Difficulties Questionnaire (SDQ), with baseline measurements collected during K1, and follow-up assessments at K2 commencement. Total difficulties score comprised four problem subscales: emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems, with higher scores indicating greater behavioural difficulties. Lower scores on the prosocial behaviour subscale reflect poorer social functioning.

**Results:** A total of 1,471 preschoolers (mean age: 3.37 years) from 72 kindergartens participated in the study. At post-intervention, significant improvements were observed across all behavioural problem measures. Total difficulties score decreased from 12.45 (SD=0.12) to 11.08 (SD=0.13) (mean difference: -1.37; 95%CI: -1.60 to -1.13;  $p<0.001$ ), with the greatest improvements observed in peer relationships (mean difference: -0.67;  $p<0.001$ ), followed by hyperactivity/inattention (-0.28;  $p<0.001$ ), emotional symptoms (-0.23;  $p<0.001$ ), and conduct problems (-0.17;  $p=0.001$ ). Prosocial behaviours significantly increased from 6.18 to 6.86 ( $p<0.001$ ). Children with special educational needs demonstrated greater reductions in total difficulties scores (-1.68) compared to those without (-1.32), although not statistically significant.

**Conclusion:** This study demonstrates the effectiveness of a community-based LSM program in reducing behavioural problems in preschool children from disadvantaged backgrounds, highlighting the value of early intervention, personalised approaches for special needs, and accessible community programs.

**Acknowledgement:** We would like to thank KeySteps@JC 2.0, a project funded by The Hong Kong Jockey Club Charities Trust.

## Poster Presentation

Poster #28

### Teaching educators about acquired brain injury – TeachABI, an online brain injury professional development module for educators

Christine Muscat (Bloorview Research Institute), Sara Marshall, Alexa Irvin, Andrea Hickling, Shannon Scratch

**Introduction:** Acquired brain injury (ABI) in childhood can lead to complex and lasting challenges that affect educational participation and outcomes. Despite the central role of educators in supporting students post-ABI, educators receive little-to-no formal ABI training. To address this gap in educator training and knowledge, our team created an online professional development module called TeachABI. TeachABI is a short (~45min), engaging, virtual module about ABI created for educators by teachers, clinicians, and families. TeachABI uses a case-based learning approach and is composed of a case study, videos of lived experiences, downloadable tip sheets, and links to additional resources. TeachABI aims to build capacity and confidence for educators to support students with ABI.

**Methods:** This study explored how educators understand and apply knowledge gained from TeachABI to support students with ABI in school settings. Twenty-nine educators completed semi-structured interviews following their completion of TeachABI. Data were analyzed using directed content analysis guided by the Theoretical Domains Framework to identify key categories related to knowledge acquisition, application, and contextual influences.

**Results:** Educators reported increased knowledge of ABI and classroom strategies, enhanced confidence, and intentions to apply the material in practice. Participants connected new learning to personal and professional experiences, highlighting the value of reflection. Internal factors (e.g., perceived competence, motivation) and external factors (e.g., classroom size, school resources, family engagement) influenced the feasibility of applying strategies. Educators also expressed a desire for continued learning and access to additional ABI-related resources.

**Discussion/Conclusion:** TeachABI is a promising tool for improving educator knowledge and preparedness to support students post-ABI in the classroom. However, systemic and environmental barriers may impact educators' ability to apply knowledge and strategies learned from TeachABI within the classroom environment. Findings underscore the need for ongoing professional development and structural supports to facilitate inclusive education for students post-ABI.

## Poster Presentation

Poster #29

### Considerations of equity, cultural diversity and inclusion in school food programs in Ontario, Canada

[Nina Trask \(University of Toronto\)](#), Nicole Weber, Mavra Ahmed, Daniel Sellen, Emma Wedekind, Raheema Khan

**Introduction:** Canada's highly diverse populations, geographies, and socio-economic contexts pose both challenges and opportunities for creating an equitable and inclusive National School Food Program (NSFP). With recent government commitments to develop an NSFP, it is critical to understand how existing school food programs (SFPs) consider equity, cultural diversity, and inclusion (EDI) in local delivery. To address the present knowledge gap, this study explores how SFP coordinators navigate EDI in their programs and identifies the facilitators and barriers they face.

**Methods:** SFP coordinators were recruited across six school boards in Ontario, Canada, resulting in a total of 55 participants representing 52 schools from a wide variety of cultural, socio-economic and geographic backgrounds. A total of 54 participants completed an online survey, and 55 participants completed semi-structured interviews. Considerations of EDI were analyzed as a subsection of the study's primary exploration of facilitators and barriers to overall program delivery.

**Results:** Participants expressed a desire to address EDI in their SFPs, but cited very limited capacity, high complexity in meeting diverse needs, and various systemic disruptions as key barriers. Facilitators included staff and community support, intentional student involvement, and knowledge of EDI strategies. Universal access and community context-informed approaches were seen as essential for equity. While inclusion related to accessibility and dietary needs was relatively well addressed, cultural diversity remained a challenge due to competing priorities, limited resources and training gaps.

**Discussion/Conclusion:** Understanding school and community-level insights on EDI reveals key opportunities to use SFPs to address broader inequities and highlights critical areas for action from policy-makers and program actors. Adapting programs to local contexts, especially in equity-deserving communities, can strengthen Canada's NSFP implementation. By embedding EDI in program priorities, building systems and school-level capacity, and maintaining dialogue with students and communities, SFPs will be better equipped to meet EDI aims effectively.

## Poster Presentation

Poster #30

### Effects of rapid weight gain in infancy on blood pressure and body mass index status in early adolescence: A retrospective birth cohort study

[Xiaoqing Zhang](#) (The University of Hong Kong), Keith Tsz Suen Tung, Hung Kwan So, Patrick Ip

**Introduction:** Hypertension and obesity are major global health burdens, with growing focus on their early-life origins. However, evidence on the impact of infant rapid weight gain (RWG) on later blood pressure (BP) and body mass index (BMI) status remains limited. This study examines how RWG during three infancy intervals (birth to 1month, birth to 6 months, and birth to 12months) would affect BP and BMI status in early adolescence (10–13 years).

**Methods:** A retrospective birth cohort of all births between 2009 and 2011 was identified in the Hong Kong Database and followed through 2023. RWG was defined as an increase in weight-for-age and sex-specific z-score  $>0.67$  from birth to 1, 6, or 12months. Systolic (SBP), diastolic BP (DBP), and BMI were measured at 10–13 years.

**Results:** Among children assessed at 1, 6, and 12 months ( $n = 1074, 930$ , and  $836$ ), the prevalence of RWG was 29.2%–29.4% from birth to 1, 6 and 12months. RWG from birth to 6 months ( $\beta = 1.837$ ; 95% CI: 0.036 to 3.637;  $p = 0.046$ ) and from birth to 12 months ( $\beta = 2.509$ ; 95% CI: 0.571 to 4.446;  $p = 0.011$ ) was significantly associated with higher SBP. No significant associations were found between RWG and DBP. RWG from birth to 1 month ( $\beta = 0.647$ ; 95% CI: 0.044 to 1.249;  $p = 0.036$ ) and to 6 months ( $\beta = 1.028$ ; 95% CI: 0.332 to 1.723;  $p = 0.004$ ) and to 12months ( $\beta = 1.445$ ; 95% CI: 0.712 to 2.179;  $p < .001$ ) was significantly associated with higher BMI. BMI was positively associated with both SBP and DBP (all  $p < 0.001$ ).

**Conclusions:** Infant RWG predicts higher SBP and BMI in early adolescence, highlighting the importance of monitoring weight gain during infancy. Future research should further explore the potential mediating role of BMI in the relationship between early weight gain and the risk of elevated BP in later life.

## Poster Presentation

Poster #31

### **Understanding school-based rehabilitation services through the lived experience of children and youth: A meta-aggregative review**

[Amelia Brushett \(McMaster University\)](#), Kelsey Seguin, Logan Wong, Clarissa McCarry-Taillefer, Peter Rosenbaum, Tara Packham, Wenonah Campbell

Children and youth with disabilities continue to face barriers to accessing quality education, despite education being a key social determinant of health. School-based rehabilitation services (SBRS)—including occupational therapy (OT), physiotherapy (PT), and speech-language pathology (SLP)—are delivered within the school context to address these barriers by promoting participation and inclusion. However, the implementation of SBRS has largely prioritized adult perspectives, with limited consideration of the lived experiences of children and youth themselves. This review aims to address that gap by using meta-aggregative methods to synthesize primary qualitative studies exploring the experiences of children and youth who receive SBRS. Following a systematic selection process and critical appraisal, 13 studies were included. A total of 53 findings were extracted, grouped into 14 categories, and synthesized into six overarching findings. Specifically, children and youth reported that they want (i) therapists to increase their autonomy and agency by clearly communicating therapy's purpose and goals and supporting their ability to make informed choices; (ii) therapists to adopt a holistic approach by addressing both social-emotional and medical needs; (iii) therapists who are knowledgeable, supportive, empathetic, and who advocate for their needs; (iv) therapy that is individualized, meaningful, enjoyable, and scheduled in a way that respects school routines, enhancing their participation in both therapy and broader school life; (v) therapy to help them build skills supporting social connection and inclusion at school; and (vi) therapy in which they set their goals and develop new skills. Findings showed children and youth want to be involved in their therapy and expect therapists to equip them with skills to participate, make decisions, and be included at school and in therapy. These results emphasize the importance of centring children's voices in SBRS design and delivery to ensure supports are meaningful, empowering, and promote full participation.



## Poster Presentation

Poster #32

### **Assessing the impact of a pilot interdisciplinary wrap-around service for children and youth with extensive mental and neurodevelopmental health needs on school engagement**

Jordan Edwards (McMaster University), Irene Drmic, Thiyaana Jeyabalan, Patricia Wilson, Srishti Sharma, Melanie Penner, Renee Baysarowich, Amedeo D'Anguilli, Sarah Raza, Nicholas Denomey, Vivian Lee

**Introduction:** Children and youth living with multiple health conditions, including those with complex mental and neurodevelopmental needs are disproportionately affected by low school attendance. Low school attendance has been shown to impact child health, development, and caregiver wellbeing and is known to be greatly influenced by the social determinants of health, including socioeconomic position. Little is known about how targeted interventions may increase school engagement among this population. Our objective is to conduct a preliminary evaluation of the impacts of a pilot transdiagnostic wrap-around service called the Extensive Needs Service (ENS) at McMaster Children's Hospital on school attendance. Specifically, we aim to describe patterns of school attendance, reasons for missing school, and associated factors.

**Methods:** We will conduct descriptive statistics of children and youth with varying levels of school attendance prior to entering our ENS service using detailed school and socio-demographical data collected as part of ENS. We will describe and characterize impact of ENS on school attendance over time using modified Poisson regression with mixed effects to assess the factors associated with change in school attendance.

**Results:** Preliminary results suggest there is a great deal of heterogeneity in patterns of school attendance and reported reasons for missing school among families prior to and during their time engaged in ENS (n=146). Homeschooling, appointments, hospitalization, refusal to attend, and suspension were emerging indicators related to variation in school attendance. Full descriptive and regression analyses will be conducted prior to the symposium.

**Conclusions:** Improving school engagement among children and youth with extensive mental and neurodevelopmental needs is important for improving child and caregiver health and wellbeing. By evaluating school engagement through the lens of a wrap-around service for families, we hope to better inform more responsive, coordinated, and family-centered approaches to improving school engagement and support for children, youth, and families with extensive needs.

## Poster Presentation

Poster #33

### Cellphone use in Ontario schools: Preliminary data examining policy implications for child and youth mental health

Eric Tu (The Hospital for Sick Children), Kimberley Tsujimoto, Danielle Baribeau, Catherine Birken, Christie Burton, Alice Charach, Katherine Cost, Elizabeth Kelley, Julia Frei, Elisabetta Trinari, Rob Nicolson, Jennifer Crosbie, Daphne Korczak

**Introduction:** As both child and youth screen use and mental health (MH) problems have significantly increased in recent years, screen use has become an intervention target to improve child and youth MH. Schools have been identified as an important space for detecting MH risk and providing support. In the 2024-2025 academic year, Ontario schools implemented cellphone policies to reduce screen use with the aim improving children's education and MH outcomes. However, the efficacy implementation of cellphone policies and their subsequent effectiveness in reducing child and youth screen use and MH symptoms is not known.

**Methods:** Children and adolescents (N = 809; Mage = 10.79 years) were recruited from community and clinical settings. Data on school cellphone policies, child screen use and child and youth MH symptoms were collected using parent-report measures. Child and youth screen use was examined as a mediator of the association between school cellphone policy enforcement and MH outcomes (i.e., depression, anxiety, conduct problems, attention, and hyperactivity).

**Results:** The large majority of children had a cellphone (95%) and brought it to school everyday (91.8%). Most schools (62.2%) had a cellphone use policy, with moderate enforcement (3.1 out of 5), which was most commonly prohibiting use during class (49.9%). Greater cellphone policy enforcement was associated with decreased screen use which, in turn, was linked to lower depression ( $\beta = -.03$ , 95% CI  $[-.05, -.003]$ ), irritability ( $\beta = -.02$ , 95% CI  $[-.04, -.0001]$ ), and irritability and hyperactivity symptoms ( $\beta = -.02$ , 95% CI  $[-.04, -.0001]$ ).

**Discussion:** Schools are still in the early stages of cellphone policy implementation and empirical data are needed. This study offers promising results of the effect of cellphone bans in limiting children's overall screen use, and potentially related protective effects on their MH.

## Poster Presentation

Poster #34

### Understanding the impact of COVID-19 school closures on mental health of school-aged children and young adults in Ontario

[Nway Nway Aung \(University of Toronto\)](#), Kuan Liu

**Introduction:** The COVID-19 pandemic led to extended school closures across Ontario, disrupting routines and limiting access to school-based supports for children, adolescents, and young adults. These disruptions may have contributed to increased mental health needs, but population-level evidence remains limited. School closure policies varied by Public Health Unit (PHU), this study examines how the frequency and duration of pandemic-related school closures were associated with changes in hospitalizations and emergency department (ED) visits for mental health concerns. The analysis focuses on individuals aged 5 to 24, stratified into four cohorts: 5–9, 10–14, 15–19, and 20–24 years.

**Methods:** We conducted a population-based cohort study by linking demographic and health administrative data using the IntelliHealth platform. Monthly school closure data were compiled at the PHU level from March 2020 to January 2022 and merged with ED visits and hospital admissions from March 2018 to February 2024, sourced from NACRS and DAD databases. Socioeconomic factors were captured using the Ontario Marginalization Index, and population counts were aggregated by age group and PHU. We used negative binomial regression models to assess associations between 1- to 3-month lagged school closures and mental health service use, adjusting for population size, seasonality, autocorrelation, and PHU-level random effects.

**Results:** Mental health-related service use declined sharply at the onset of the pandemic across all age groups, with the largest declines observed among those aged 15 to 24. Service use remained stable among children aged 5–9 throughout the study period. Higher rates of service use were associated with socioeconomic deprivation and female. Substantial variation across PHUs was also observed.

**Discussion:** Findings suggests that school closures may have influenced patterns of mental health service use among youth in Ontario. Regional variation highlights the potential value of local, targeted mental health supports during future public health disruptions.

## Poster Presentation

Poster #35

### **Bridging the health-education divide: Hospital-to-school transitions after traumatic brain injury**

Pranav Varma Suraparaju (University of California, Los Angeles), Ria Pal

**Introduction:** Children with traumatic brain injury (TBI) often face difficulty in accessing appropriate special education services due to delayed recognition of cognitive symptoms, rights awareness, resource limits, and complex IEP planning. In particular, the transition from hospital to school is a pivotal juncture that shapes long-term health and educational trajectories. We conducted a scoping narrative review to examine how social and structural determinants—such as care coordination, family burden, and hospital-school communication—impact hospital-to-school transitions and to identify strategies to improve child health and educational equity in this population.

**Methods:** We systematically searched English-language literature (2003–2024) and included studies on children aged 5–18 with TBI transitioning from hospital (acute or rehabilitation) to school. Eligible studies reported educational or psychosocial outcomes (e.g., school re-entry, service access, academic performance). Studies were excluded for primary psychiatric hospitalization, lacking primary data, and including interventions not related to education. All study designs were considered. Data were extracted and thematically analyzed.

**Results:** The included studies (N=14) revealed a profound “implementation gap” between best-practice recommendations and real-world transitional experiences. Four key themes emerged: (1) systemic fragmentation and lack of standardized transition protocols leading to inconsistent, inequitable support; (2) critical importance of a designated “linking” coordinator and multidisciplinary collaboration, which were frequently absent; (3) an unsustainable burden on families, who often become de facto case managers; and (4) a dearth of rigorous, outcome-focused research on transition interventions themselves.

**Discussion/Conclusion:** Without formal bridges between healthcare and education, children with traumatic brain injuries and their families will continue to fall through the cracks. This review highlights a policy-relevant need for integrated, family-centered transition models with dedicated coordinators and formalized inter-system communication. Strengthening cross-sector collaboration and pursuing rigorous, community-engaged research are critical steps to address this structural gap and advance educational and health equity.

## Poster Presentation

Poster #36

### **Building a national linked pregnancy cohort in Canada: Integrating clinical, social, and environmental data for perinatal health research**

Sabrina Chiodo (University of Toronto), Sonia Grandi, Jesse Gronsbell, Laura Rosella

**Introduction:** Social, structural, and environmental inequities play a critical role in shaping maternal and child health. Yet Canada lacks national, linked data resources that integrate these determinants with clinical outcomes. We created a novel population-based cohort to enable equity-informed perinatal research, address infrastructure gaps, and support the development of targeted interventions rooted in population health evidence.

**Methods:** We linked 2000–2017 data from the Canadian Community Health Survey (CCHS) to the Discharge Abstract Database (DAD) to identify individuals with a hospital delivery within two years of survey participation. Cohort creation and data linkage were conducted at Statistics Canada's Research Data Centre in Toronto, a secure and privacy-protective research environment. To enrich this cohort with social and environmental context, we appended area-level exposures using postal code linkages to the Canadian Marginalization Index (CAN-Marg), the Canadian Urban Environmental Health Research Consortium (CANUE), and the Canadian Active Living Environments (Can-ALE) Index. These data sources enable the study of factors such as neighborhood deprivation, air pollution, green space, and walkability.

**Results:** The final cohort includes 13,360 pregnant individuals aged 15–49 who had a singleton hospital birth within two years of their CCHS interview. The cohort is socioeconomically and ethnically diverse: nearly 25% identify as visible minorities, 25% are immigrants, and all income quintiles are represented. The dataset includes rich pre-pregnancy information on chronic conditions, psychosocial stress, health behaviors, and healthcare access, along with clinically validated delivery outcomes.

**Conclusion:** This cohort fills a critical data gap in maternal-child health research by enabling multilevel, equity-focused analyses of adverse pregnancy outcomes. It supports ongoing work to develop precision public health strategies aimed at improving maternal and child outcomes across Canada. To promote reuse and replication, code will be made available so that other researchers can recreate and apply this cohort in Statistics Canada's secure RDC environment.

# THANK YOU!

## Contact Us

**Symposium Website:** [leongcentresymposium.ca](https://leongcentresymposium.ca)

**Centre Website:** [leongcentre.utoronto.ca](https://leongcentre.utoronto.ca)

**Follow Us:** @leongcentre   