

ESTIMATING THE PREVALENCE AND INCIDENCE OF CEREBRAL PALSY IN CHILDREN AND YOUTH IN BC: IMPLICATIONS FOR MULTI-LEVEL SURVEILLANCE



PRESENTER:
Smith, Anya,
BSc, PhD

INTRODUCTION

Cerebral Palsy (CP) is a leading cause of chronic pediatric physical disability. There is currently no population-level CP surveillance system in BC. Early detection of CP is critical in preventing adverse health outcomes such as hip displacement and dislocation. The Child Health BC Hip Surveillance Program (BCHSP) is a current clinical pediatric CP surveillance program. This study aims to produce up-to-date BC CP prevalence and incidence estimates within the pediatric population by developing a validated predictive model using linked health administrative databases to improve BCHSP enrollment rates and provide baseline data for on-going population-level CP surveillance.

METHODS

Cross-walked health administration and BCHSP data will be used to develop and validate a General Additive Model (GAM) to predict CP cases, and prevalence and incidence estimates reported. Additional indicators for on-going population-based CP surveillance will be selected and reported.

PREDICTING CP CASES FROM BC HEALTH ADMINISTRATIVE DATA AND CONDUCTING POPULATION-BASED PEDIATRIC CP SURVEILLANCE



IMPLICATIONS FOR POLICY, PRACTICE, OR ADDITIONAL RESEARCH

This research is expected to support the optimization of health outcomes for children and youth with CP through:

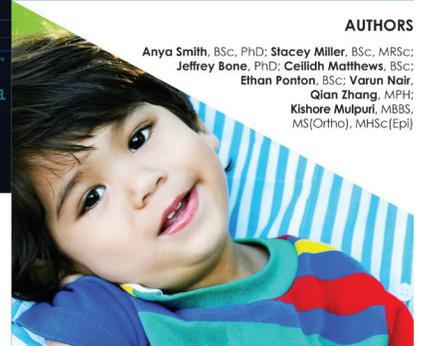
1. Improving BCHSP early enrolment rates and;
2. Informing ongoing population-level pediatric CP surveillance and research in BC and beyond

NEXT STEPS

1. Obtain the health administrative data and conduct analysis
2. Develop an integrated population-level surveillance program

AUTHORS

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POSTER TITLE:

Estimating the prevalence and incidence of cerebral palsy in children and youth in BC: Implications for multi-level surveillance

PRESENTER AND TITLE:

Presenter: Anya Smith, Scientific Lead, Clinical Assistant Professor, School of Population and Public Health, UBC
Co-Authors: Stacey Miller, Jeffrey Bone, Ceilidh Matthews, Ethan Ponton, Varun Nair, Qian Zhang and Kishore Mulpuri

DEVELOPMENT OF A PROVINCIAL VIRTUAL PSYCHIATRY CONSULT SERVICE FOR RURAL AND REMOTE EMERGENCY DEPARTMENTS: SUPPORTING CHILDREN & YOUTH WITH MENTAL HEALTH AND SUBSTANCE USE CONCERNS NEAR AND FAR



BACKGROUND

- In British Columbia (BC), the **low number of child and youth (C&Y) psychiatrists** across rural, remote, and northern communities makes access to timely and appropriate mental health care challenging.
- Pediatric visits to **emergency departments (EDs)** due to **mental health or substance use (MHSU)** concerns are increasing.
- **Collaboration among stakeholders** at the local, regional and provincial level was required to **develop a provincial service model** to ensure patients and their families receive **culturally safe emergency care** informed by best and wise practices for MHSU concerns.
- A **small rural hospital** in northern BC with approximately 700 annual pediatric ED visits was selected as a **demonstration project**.



"WHY US"

SCAN THE QR CODE

Hear about the experiences of local youth in the region in this song written, recorded and filmed with youth from T'az'en Nation

Produced by and shared with permission from N'we Jinan Artists



METHODS & RESULTS



An **environmental scan** and a **literature review** was conducted to understand existing virtual service models used by other jurisdictions. Existing models used technology to complete direct patient assessments and/or provide clinicians with provider-to-provider support.



Data from Northern Health and BC Children's Hospital were analyzed to gather information about **ED service volume and use of existing C&Y MHSU services**. The majority of ED visits for MHSU occurred after school, in the evening and on weekends **when other supports were not accessible**.



28 key informant interviews were conducted with local ED staff, family physicians, community providers including from First Nations communities in the service area, and C&Y psychiatrists across the province. Participants highlighted **lack of standardized procedures and communication protocols** during transitions to higher level of care or discharge to community.



A series of **stakeholder meetings** were held to discuss key components of the service and a survey allowed stakeholders to **validate and vote on critical features**. Based on the majority vote and evidence, a service model was finalized.



The resulting model is a **provider-to-provider** consult with a **virtual first team** comprised of a C&Y psychiatrist, allied C&Y MHSU professional, and regional liaison, available seven days a week from 16:00 – 23:00. **The service will provide treatment and care plan recommendations, knowledge translation, and system navigation assistance.**



NEXT STEPS

The project is currently securing funding and finalizing operational requirements. Following this, the service model will be implemented at the selected site, and evaluation will be conducted to support continuous improvement and scale up to other rural and remote sites across BC.

AUTHORS

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POSTER TITLE:

Development of a Provincial Virtual Psychiatry Consult Service for Rural and Remote Emergency Departments: Supporting Children and Youth with Mental Health and Substance Use Concerns Near and Far

PRESENTER AND TITLE:

Presenter: Erica Koopmans, Child Health BC Regional Coordinator, Northern Health
Co-Authors: Jennifer Begg, Melissa Coop, Simran Jawanda, Kit Johnson, Anthon Meyer, Mahmoud Mitha, Angela Olsen, Joelle Pellegrin, Jennifer Russel, Marilyn Thorpe, Sina Waibel and Wan Ling (Linda) Wu

PRESENTER QUOTE:

"This project is just one example of collaborative work taking place across the province of British Columbia to support child and youth mental health. Pediatric mental health is vast and complex, and caring for children and youth with mental health and/or substance use concerns can come with lots of questions. We want to ensure that these children/youth, and their families receive quality, culturally safe emergency care informed by best and wise practices and that staff feel they have the support to provide this."

- Erica Koopmans

SELECTION OF PROVINCIAL PEDIATRIC MENTAL HEALTH QUALITY MEASURES FOR HEALTH SYSTEM IMPROVEMENT IN BRITISH COLUMBIA



PRESENTER:
Janke, Rita

BACKGROUND

- Child Health BC (CHBC) network of British Columbia (BC) child health leaders identified the need for provincial measures
- Current state: no complete comparable BC data for all BC emergency department, outpatient and community care.
- Estimated 18,600 pediatric emergency department visits/year (4% of all visits) are related to mental health or substance use complaints.
- Mental health prioritized as first area for development

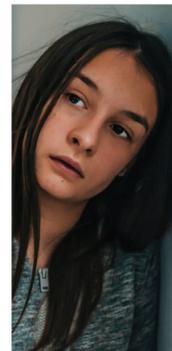
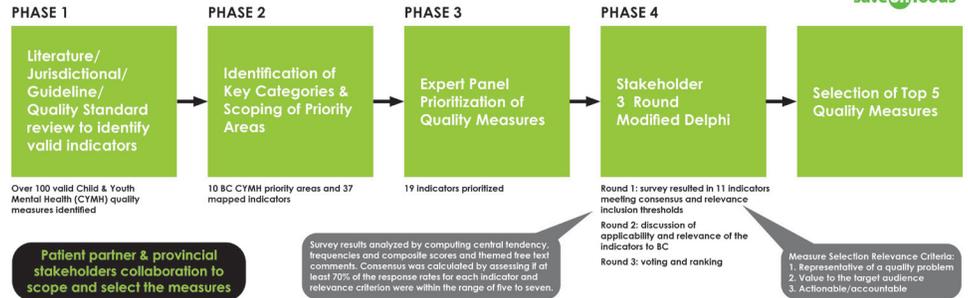
LESSONS LEARNED

- Collaborative stakeholder involvement has set the stage for development of a provincial learning health system - quality improvement, system-wide learning and sustainable system change.
- Results of a process evaluation are informing the selection of the next of priority set of measures
- Evaluation suggestions for improvement include: increasing process transparency, patient/family participation, and discussion opportunities.

IMPLICATIONS FOR PRACTICE

- Regional process variation across the province, requires measure refinement for consistency.
- Required provincial data collection, testing for feasibility..
- Required processes for provincial data sharing, analysis, interpretation and reporting need to be developed concurrently.

SELECTION METHOD/RESULTS: 4 PHASES – MODIFIED DELPHI



5 BC Provincial Mental Health Quality Measures

- Satisfaction with support after discharge
- Seclusion and Restraint Events
- Emergency Department Visits: Mental Health/Substance Use by presenting complaint (Foundational Measure)
- Emergency Department 30 day revisits Mental Health/ Substance Use by presenting complaint (Foundational Measure)
- Wait-time for Eating Disorder Services: Referral Assessment->Treatment



AUTHORS

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¹Child Health BC (CHBC), Provincial Health Services Authority, Vancouver, BC;
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³University of British Columbia, In Collaboration with CHBC Quality Committee, CHBC Tiers of Service Mental Health Priority Setting Group and CHBC Network Partners.

POSTER TITLE:

Selection of provincial pediatric mental health quality measures for health system improvement in British Columbia

PRESENTER AND TITLE:

Presenter: Rita Janke, Director of Quality and Evaluation, Child Health BC
 Co-Authors: Michael Smith, Sina Waibel, Wan Ling (Linda) Wu, Kit Johnson and Pilar Rodriguez

PRESENTER QUOTE:

“The conference gave us the opportunity to showcase the strength of our partnerships in child health across BC. It also shows how through collaboration, we are determining quality gaps and identifying quality measures that are foundational for shared learning and system improvements informed by data.”

- Rita Janke

IMPROVING CHILDREN AND YOUTH MENTAL HEALTH SERVICES IN BRITISH COLUMBIA: PRIORITIZATION OF PROVINCIAL QUALITY IMPROVEMENT OPPORTUNITIES DURING THE COVID-19 PANDEMIC



PRESENTER:
Sina Weibel PhD MPH^{1,2}

BACKGROUND

- Mental health (MH) is fundamental to human development and essential for all children to flourish.
- According to the UN, children are at risk of becoming the "biggest victims" of the Covid-19 pandemic as the unintended consequences of the pandemic mitigation measures have had a profound effect on their mental health and well being.
- Priority setting is a complex and difficult problem faced by many decision makers of the health care system.

OBJECTIVE

Our objective was to prioritize provincial MH quality improvement opportunities for children and youth in British Columbia (BC), identified through a cross-sectional approach using a Tiers of Service framework.



The approach was conducted in two phases:

METHODS

Phase 1:

Virtual meetings were conducted using Zoom for Healthcare. Mentimeter, a real-time voting tool, was used to collect data and present results. A 2-step modified Delphi was conducted:

- Opportunities were rated using a 5-point Likert scale on the expected impact and effort to implement, and
- The top 4 opportunities were selected using dot-voting. 19 diverse stakeholders including youth and family with lived experience participated.

Phase 2:

Virtual focus groups were held with all 6 health authorities in BC to better understand the local context and rank the opportunities. 75 experts participated.

PARTICIPANTS:

- 2 ED physicians
- 9 psychiatrists
- 6 pediatricians
- 17 pediatric leads
- 22 mental health leads
- 11 educators
- 3 emergency leads



SUCCESSFUL PRIORITIZATION OF QUALITY IMPROVEMENT OPPORTUNITIES IN CHILD AND YOUTH MENTAL HEALTH SERVICES: STRATEGIES THAT WORKED WELL DURING A PANDEMIC



STRATEGIES THAT WORKED

- ✓ **Mentimeter ensured engagement and involvement** of all participants during the Delphi process.
- ✓ **Virtual focus groups enabled us to better understand** facilitators and challenges as well as change ideas to help support successful implementation.
- ✓ **Early involvement** of key stakeholders.
- ✓ **Youth and family with lived experience were equal partners** and facilitated the assessment of impact.



For more information on the Mental Health for Children and Youth Tiers of Service work, please scan the QR code



RESULTS

Phase 1 results:

Quick Wins 79% of the opportunities landed in the high impact and low effort category. Consensus was reached for all opportunities on impact but only 2 opportunities yielded consensus on effort.

Dot voting:

4 opportunities were selected (12% each).

Phase 2 results:

2 opportunities were ranked the highest.

OUTCOMES

- Develop a system to support education for staff/physicians on child and youth MH in acute care (Tiers 2-4).
- Develop a system for Tier 5/6 sites to support Tier 2-4 sites with telephone/virtual consultation.

NEXT STEPS

Now that we have identified provincial priority opportunities for improvement, planning has begun to address them in collaboration with health authority partners.



AUTHORS

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POSTER TITLE:

Improving children and youth mental healthcare services in British Columbia: prioritization of provincial quality improvement opportunities during the COVID-19 pandemic

PRESENTER AND TITLE:

Presenter: Yasmin Tuff, Child Health BC Project lead
Co-Authors: Sina Weibel, Angela Olsen, Pilar Rodriguez and Jennifer Scarr

PRESENTER QUOTE:

“In 2019, a survey of 31 hospitals and six specialized mental health services that care for children and youth was undertaken using the tiers of service framework. With the onset of the pandemic, we needed to come up with an innovative approach to setting priorities. Our poster described the methodology we used, the strategies we found to be effective and some of our lessons learned. Key to this work was the importance of including youth and family with lived experience and collaborating with our health authority partners.”
- Yasmin Tuff

A COLLABORATIVE AND DATA DRIVEN APPROACH TO DEVELOPING AN ANNUAL PLANNING SYSTEM FOR THE DELIVERY OF SUB-SPECIALTY OUTREACH SERVICES

PRESENTER: Fjeldstad, Shannon

BACKGROUND

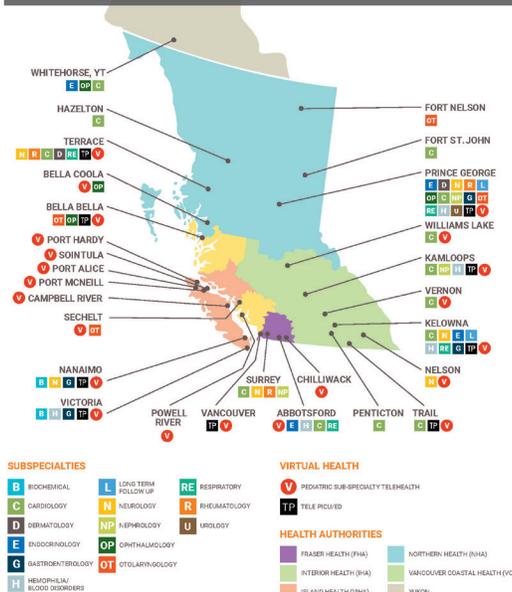
In British Columbia (BC) and the Yukon, children with complex health care needs are referred to sub-specialty teams at BC Children's Hospital (BCCH). For children living outside of Vancouver, a trip to BCCH can mean significant travel, cost and disruption for the whole family. BCCH and Child Health BC (CHBC) plan and coordinate outreach clinics in partnership with the Regional Health Authorities (HA) and local providers. Successful planning requires a coordinated approach to examine the numerous inputs and respond to differing needs. Deliberations consider the impacts on rural and remote communities, underserved populations and complex patient/family needs. Outreach planning must also consider requirements for visiting providers, impacts on host sites and local care teams; as well as integration with virtual care. **To provide a framework for planning outreach services, an annual process was developed.**

METHODS

The annual outreach planning process developed for the 2021/2022 fiscal year included:

- Planning team to provide leadership and linkages with data analytics, virtual care and operations
- Standardized tools, guidelines and data
- Review of data to identify service gaps and develop a proposed annual plan
- HA meetings to review proposals, identify additional considerations and obtain approvals
- Coordinators to work with each HA site, confirming details and supports
- Integration of existing community sub-specialists into the delivery of outreach
- Follow-up with the HAs to discuss identified /emerging issues

A STANDARDIZED ANNUAL PLANNING PROCESS PROVIDED THE FRAMEWORK FOR SUSTAINABLE FACE-TO FACE AND VIRTUAL OUTREACH FROM BCCH SUB-SPECIALISTS TO SITES ACROSS BC AND THE YUKON.



RESULTS

The annual planning process included 14 BCCH Medical/ Surgical Divisions, all 5 Regional HA's and the Yukon. COVID safe site assessments were completed for 19 sites to safely restart outreach services based on provincial and territorial requirements. Subsequently annual plans for each HA were developed outlining all outreach activity until the end of March 2022. A total of 229 outreach clinic days have been booked in the host sites.

The annual planning process also included provincial education initiatives led by the sub-specialty teams at BCCH and expansion of the program to support residents and fellows in outreach programs.

NEXT STEPS

- Ongoing evaluation will be required to further refine the processes
- Ongoing planning to improve standardized data collection and reporting
- The next cycle of annual planning will allow for ongoing modifications in response to feedback

AUTHORS

Shannon Fjeldstad, CHBC, Jennifer West, BCCH, Siddharth Shankar, BCCH, Gary Hoyano, CHBC, Joelle Pellegrin, CHBC, Erica Koopmans, CHBC, Irish Thomson, CHBC, Nicole Cave, CHBC, Theresa McElroy, CHBC, Susan Schroeder, BCCH, Kit Johnson, CHBC



BC Children's Hospital
PEDIATRIC HEALTH SERVICES AUTHORITY

CHILD HEALTH BC
LEAD BENEFACTOR
save on foods

POSTER TITLE:

A Collaborative and Data Driven Approach to Developing an Annual Planning System for the Delivery of Sub-Specialty Outreach Services

PRESENTER AND TITLE:

Shannon Fjeldstad, Child Health BC Regional Coordinator, Island Health
Co-Authors: Jennifer West, Siddharth Shankar, Gary Hoyano, Joelle Pellegrin, Erica Koopmans, Trish Thomson, Nicole Cave, Theresa McElroy, Susan Schroeder, Kit Johnson

PRESENTER QUOTE:

“Our poster highlighted the collaboration between BC Children’s Hospital, Child Health BC, the Regional Health Authorities and the Yukon in the planning and delivery of subspecialty outreach clinics.”

- Shannon Fjeldstad

Evaluation of Pediatric Therapists' Use of Virtual Health due to the COVID-19 Pandemic



PRESENTER:
Juricic, Maria

BACKGROUND: COVID-19 led to the suspension of in-person therapy sessions in March 2020 in British Columbia (BC). This necessitated the use of virtual visits (remote face-to-face consultations). Here we report the assessment of pediatric physical therapists (PTs) and occupational therapists (OTs) use of virtual visits and barriers to virtual care during the COVID-19 pandemic.

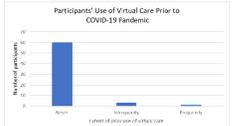
METHODS

1. Anonymous survey sent in June 2020 to 130 therapists
2. 64 respondents (49%)
 - 60 PTs, 1 OT, 3 dual-trained PT/OTs



Almost half (48%) the participants practice in metro settings

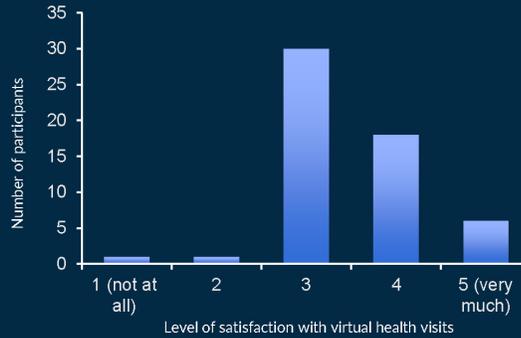
RESULTS



60/64 (~94%) of participants had not used virtual care prior to the COVID-19 pandemic

Since the start of the pandemic, 86% of therapists reported providing virtual visits (as compared to 6% pre-pandemic).

Pediatric therapists rapidly switched to using virtual healthcare due to the COVID-19 pandemic and less than half were satisfied with their experience.



THE UNIVERSITY OF BRITISH COLUMBIA



Barriers identified suggest virtual visits are not always easily accessible for families

Barriers to Virtual Care

- Families are unfamiliar with platforms (55%)
- Families do not want to be seen virtually (53%)
- Families are unable to afford technology (41%)
- Lack of Wi-Fi or poor connection (39%)
- Privacy and security concerns (14%)
- Other (30%)
 - Completing a physical assessment (19%)
 - Engaging the child and family (9%)

Challenges for Hip Surveillance

- Completing clinical exam (65%)
- Families to complete forms (39%)
- Identifying children for surveillance (25%)

Training, tools, and supports are required should virtual visits continue

▲ Stacey Miller, Jennifer Farr, Ceilidh Matthews, Maria Juricic, Kishore Mulpuri



POSTER TITLE:

Evaluation of Pediatric Therapists' Use of Virtual Health due to the COVID-19 Pandemic

PRESENTER AND TITLE:

Stacey Miller, Coordinator of the Child Health BC Hip Surveillance Program for Children with Cerebral Palsy

Co-Authors: Jennifer Farr, Ceilidh Matthews, Maria Juricic, Kishore Mulpuri