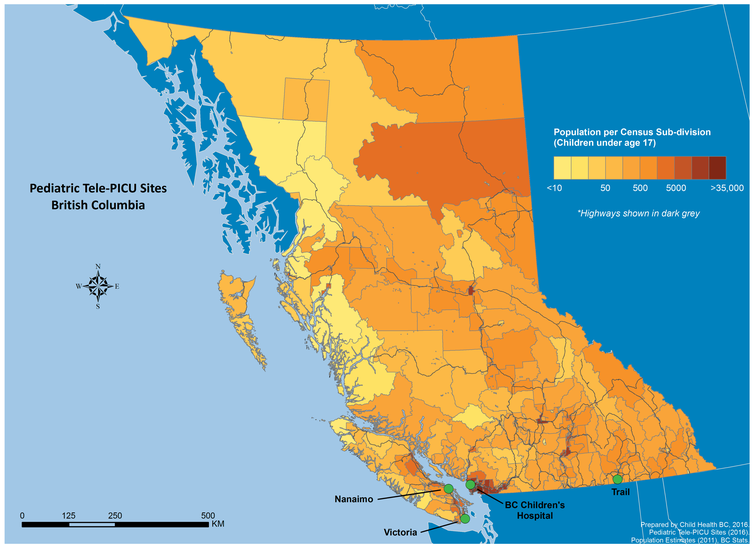
Tele-PICU: Using 24/7 On Demand Virtual Consultation

Michele Fryer, BScN MHSA[1]; Mary Lou Matthews[1], MSc BSc BEd SLP[C]; Sarah Robertson[2], PMP; David Wensley[2,3], BSc, MB BS, FRCPC; Amanda Barclay[4], BA&Sc, MD, FRCPC;
Carolyn Carlisle[1], RN BSN & Maureen O'Donnell[1,3], MD MSc FRCPC
Child Health BC[1]; Provincial Health Services Authority[2]; University of British Columbia[3]; Vancouver Island Health Authority[4]

A First in Canada

BRITISH COLUMBIA CONTEXT

- 1 Provincial Health Services Authority (PHSA)
- 5 Regional Health Authorities (RHA's)
- 1 Children's Hospital - BC Children's Hospital (BCCH), Vancouver
- 2 Pediatric Intensive Care Units (PICU's), with pediatric intensivists (BCCH and Victoria General Hospital)



COLLABORATION & PARTNERSHIPS

- Child Health BC brings together BC's health authorities, child serving ministries and key child health service providers.
- Child Health BC (CHBC) and PHSA Telehealth are leading this initiative.
- The success of this initiative requires partnering with BCCH's clinicians and leadership, along with participating RHA's clinicians, technicians and administrative staff.

GOALS OF TELE-PICU

- Provide on demand access to pediatric intensivist and sub-specialist consultation for critically ill children who present at hospitals that do not have Pediatric Intensivists.
- Establish two-way video conferencing connectivity to a PICU to facilitate well informed clinical decisions.
- Support local teams in immediate stabilization of critically ill children.
- Support local teams in ongoing care without transport by entering the child in the "virtual PICU" for ongoing assessment by the Pediatric Intensivist.
- Create collaboration between PICU and local providers about care and transport decisions.
- Improve patient/family experience by enabling them to "meet" the teams involved before moving to a PICU if required.
- Allow families to be more meaningful participants in assessment and decision making.
- Provide 24/7 technical support for clinical teams to ensure reliability and quality.

COMPLEX PLANNING: THE STEPS TO SUCCESS

CLINICAL GOALS

Designed to support initial assessment, transport and treatment decisions at a level that is beyond what is immediately available. Also intended to build local clinical capacity by fostering knowledge transfer.

SITE SELECTION

Selected first sites based on clinical need, diversity of size across sites, as well as clinical and technical readiness.

GOVERNANCE AND DECISION MAKING

Memorandums of Understanding were formally signed across health authorities and the initiative was guided by a Project Charter.

CLINICAL AND TECHNICAL TEAMS WORKING IN LOCKSTEP

Patient registration, easy to use provider connections, care documentation, clinical accountability, standardized equipment, site delivery, set up, testing and 24/7 technical support.

TRAINING AND COMMUNICATION

Technical/site specific manuals, step by step flow charts, virtual and 1:1 training, internal and external communication plans.

TESTING AND MOCKS

Multiple mocks to ensure comfort level, modifications to equipment, followed by more testing.

GO LIVE!!

Critically ill children can receive early specialized service in their community. Teams are supported by carefully planned processes and workflows, leading equipment and 24/7 technical support.

EVALUATION

Process evaluation includes clinical impact, timeliness, family experience, user experience, and in the longer term, efficiency and effectiveness.

EXPANSION

Ongoing work with health authorities to identify next sites to align with Tiers of Service work regarding children's emergency services.

EARLY EXPERIENCES: QUOTES FROM PROVIDERS

"The transport team had trouble with vent settings and patient's O2 saturations were low. We were able to address that in real time then see the 02 saturations pick up instantaneously with our interventions."

"It felt really good to see the patient in person and know before transport how sick she was and watch the progress while advising the local team."

"The parents were right there on the screen and we could ask more history questions. We could alleviate some of the unknowns that the parents felt as they were meeting the team which would be caring for their child, far away."

Child Health BC is an initiative of BC Children's Hospital and the PHSA.

ACKNOWLEDGEMENTS

Thank you to the BC Children's Hospital Foundation for their support of Child Health BC.
Thank you to the many members of the Tele PICU Clinical and Technical working groups from Interior Health, Island Health and the Provincial Health Services Authority.

CONTACT INFORMATION

Michele Fryer, michele.fryer@cw.bc.ca
Carolyn Carlisle, ccarlisle@phsa.ca

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