

Connected Care

SickKids®

Program Report

2017 to 2020

January 6, 2021



Executive Summary

Annually, SickKids discharges over 3000 children with complex medical conditions who require very specialized paediatric home care supports, to communities across the province. Historically, many home and community care providers¹ lack the expertise to care for the resource intensive paediatric population and as a result, children and their families often experience challenges when transitioning from hospital to home and community care.

In 2017 SickKids was awarded funding by the Toronto Central LHIN (Ontario Health), to develop **Connected Care**, a program that aims to improve transitions from hospital to home and community care for children residing in the 5 GTA LHINs. The program supports providers and family caregivers to deliver safe, high quality, evidence-based, and standardized paediatric home and community care.

Connected Care harnesses SickKids' expertise to partner across hospital and the home and community care sector to deliver three services: paediatric education, virtual outreach, and bridged transitions. The table below aligns these services with deliverables outlined in the program's funding letter.

Original MOHLTC/LHIN Deliverables outlined in funding letter	Connected Care service offerings
1. Competency based training to home and community care providers	Paediatric Education
2. A 24 hour, 7 days a week virtual consultative model to support and maintain capacity among home care providers	Virtual Outreach
3. Standard home care processes and tools to reduce variation in care	Paediatric Education
4. SickKids Transition to Home Care Team to support transition from hospital to home	Bridged Transitions

Connected Care has achieved all of these deliverables and, in addition, has leveraged the program to support the paediatric health system during the Covid-19 pandemic and has been awarded several external grants to assist with program evaluation.

Paediatric Education

Connected Care has transformed the way paediatric education is delivered to families and their home and community care providers, so that children are ready to go home sooner, reducing hospital length of stay and readmissions. Education is delivered by highly trained SickKids clinicians both in person and virtually, and covers topics most often encountered by families and home and community care providers.

Since 2017, Connected Care has delivered **over 1500 paediatric education sessions to home and community care providers** and **over 3200 sessions to family caregivers** – and these numbers have steadily increased year over year. In 2020, the program **delivered more than 900 paediatric education modules** to home and community care providers and **1600 education sessions** to family caregivers.

The **number of home and community care provider organizations participating in training have also increased from 9 in 2017 to 30 in 2020**, across all 5 GTA LHINs and beyond; and **from 225 patients supported in 2017 to more than 700 in 2020**.

Virtual Outreach - Connected Care Live

Connected Care *Live* provides real time support to home and community care providers by connecting them with expertly prepared SickKids clinicians through an online platform. Specifically, registrants to Connected Care *Live*, get access to:

- **24/7 SickKids nurse-led consultative services** connecting home and community care providers with a Connected Care resource nurse through an online platform; and
- **Quick Hits**, which are online practice updates and resources, developed to support the care of children at home based on the questions most asked by home and community care providers.

¹ Includes those providing specialized paediatric health services in home and community care (e.g. shift and visit nursing, rehabilitation services), congregate care settings (e.g. shelters, group homes), schools and community (e.g. daycare), respite facilities, hospice and community hospitals.

Since launching Connected Care *Live* in 2019, the virtual service has grown to include **756 unique users from more than 50 organizations** across the province; **supported more than 500 nurse led consultations** with home and community care providers; developed **35 Quick Hits** and enabled access to well over **1500 self-directed resources**.

"We had a nurse last night use Connected Care Live while we were sleeping to confirm a new order for Owen...not only did she say it was perfect, easy and so fast - she didn't wake us up!! I know this seems soooooo small and so minuscule in the grand scheme of life but taking away a simple wake up to answer a question goes a long way for some families!"

– Family caregiver

Bridged Transitions

Since January 2020 Connected Care delivers a bundle of services to children with the most complex discharge needs. In addition to paediatric education, elements within the bundle provided to families and home and community care providers include: **"just in time" training**, personalized as it is needed, at key points of the transition; partnering with families, hospital and home and community care providers to conduct a **joint review of the child's care plan** at the bedside; and **virtual visits** between Connected Care and family caregivers within one week of discharge to offer additional education or other needed supports.

Connected Care's also collaborates across the sector to **develop and implement care pathways that standardize the coordination of discharges**. These pathways guide families and their providers through all the touchpoints and major milestones required to prepare for a safe discharge home, including acquiring equipment, securing funding, identifying home care resources, etc.

Connected Care enables **greater system integration** by developing and testing solutions to support family caregivers and health care providers across sectors to work together towards seamless transitions. Standardized order sets, care pathways, and documentation and tracking tools are shared across teams; and "one team" approaches are supported through joint weekly rounds, shared professional development, and physical co-location of hospital and home and community care staff.

Connected Care **offers the bridged transition service bundle to approaching 100% of service providers** supporting families transitioning to home and community care with nursing services and in 2020 delivered more than **100 'just in time' personalized training/care planning sessions** and **250 virtual post discharge visits**.

Connected Care supporting the Covid-19 Response

The Covid-19 pandemic created unique challenges across the paediatric sector and although not part of the program's initial mandate, Connected Care is uniquely positioned to support the system in addressing these challenges. To date Connected Care has spearheaded the following initiatives:

- Expanding access to more virtual solutions, while maintaining priority for in-person services when needed
- Delivering Connected Care on the Go! to enable paediatric training supplies are in the hands of remote learners
- Providing rapid updates and responding to safety risks and practice alerts needed during the pandemic
- Developing Covid-19 guidelines for the delivery of home care for children with medical complexity at school
- Supporting education and clinical support needs for the Covid-19 Recovery Hotel shelters and congregate settings
- Collaborating in development of a Regional Covid-19 testing model and services for children with medical complexity

Innovation, Research and Evaluation

Connected Care has also been awarded innovation and research grants enabling a robust evaluation of the program, including:

- Transitions in Care Grant funded by the Canadian Institute of Health Research (CIHR)
- Innovation in Nursing Grant funded by Registered Nurses Foundation of Ontario
- The Baxter Home Care Grant funded by SickKids Foundation

Connected Care Program Report

The need to better coordinate and build capacity to deliver specialized paediatric home care

Every year SickKids discharges over 3000 children with medical complexity (CMC) and technology dependence (e.g. mechanical ventilation, central venous access devices), to communities across the province, requiring specialized pediatric home and community care² in order to:

- enable a child's safe transition from hospital to home and community care,
- support and minimize stress and negative health outcomes for family caregivers, and
- prevent costly hospital visits and readmissions

These children have conditions that affect multiple organ systems typically requiring daily use of medical technology and long-term (often for years or decades) reliance on home and community care to safely support their resource intensive complex care needs.



Home and community care requires highly specialized knowledge and skills when a child depends on medical technology. Advances in technologies and paediatric practice are rapid and the home and community care sector often struggles to provide specialized services required 24/7 and stay up to date. Moreover, home and community care service providers who lack a critical mass of paediatric patients are challenged to develop and maintain the necessary expertise to care for this population.

As a result, these children and families have experienced significant challenges when transitioning home, including:

- Lack of consistent, competent home and community care providers with adequate paediatric expertise
- Uncoordinated and non-standardized approaches to practice and care plans between the hospital and home and community care teams; and
- Frequent missed shifts or visits from home and community care providers

Ultimately families can be left feeling unsupported and highly stressed, lacking confidence in the health system when they transition home with their child.

To that end, in 2017, the Toronto Central LHIN approached SickKids, on direction from the Ministry of Health and Long-Term Care, to explore solutions to address these issues and ultimately enhance home and community care for children and their families.

“On that day, I was out running errands and received a call from my home care nurse. She was pretty much in a panic. I had to stop what I was doing and come straight home to help her unblock my daughter's feeding tube. She should have known how to do it. There should have been a better way for her to be prepared and get the help she needed.”

-Sophia, mother to Jahlisa)

² Includes those providing specialized paediatric health services in home and community care (e.g. shift and visit nursing, rehabilitation services), congregate care settings (e.g. shelters, group homes), schools and community (e.g. daycare), respite facilities, hospice and community hospitals.

Connected Care



**Supporting paediatric home and community care providers.
Improving transitions from hospital to home.**

In 2017 SickKids was awarded 5-year funding from the Ontario Ministry of Health and Long Term Care (through the Toronto Central LHIN) to develop Connected Care, a program that:

- Improves transitions from hospital to home and community care for children residing in the 5 GTA LHINs;
- Builds confidence, competence and shared purpose among children, families and health care providers to deliver safe, high quality, evidence informed, standardized, paediatric home care.

To achieve these goals, Connected Care leverages SickKids expertise and partners across the system to provide three service offerings:

1. Paediatric education for home and community care providers and family caregivers
2. Virtual outreach to link home and community care providers with expertise at SickKids; and
3. Bridged transitions to support the transition of patients from hospital to home and community care.



The table below shows the alignment between deliverables outlined in the original Toronto Central LHIN funding letter and Connected Care’s three main service offerings.

Original Deliverables outlined in funding letter	Connected Care service offerings
<ul style="list-style-type: none"> • Competency based training to home and community care providers 	Paediatric Education
<ul style="list-style-type: none"> • A 24 hour, 7 days a week virtual consultative model to support and maintain capacity among home care providers 	Virtual Outreach
<ul style="list-style-type: none"> • Standard home care processes and tools to reduce variation in care • SickKids Transition to Home Care Team to support transition from hospital to home 	Paediatric Education Bridged Transitions

Since beginning the program in 2017, Connected Care has achieved these original deliverables and, in addition, has leveraged the program to support the health system during the Covid-19 pandemic, and been awarded several external grants to assist with robust program evaluation.

Design and Oversight of Connected Care

The voices of patients, family caregivers and health system partners have been central to the design, implementation and evaluation of Connected Care – creating a shared purpose to improve transitions from hospital to home.

Connected Care’s collaborative governance structure oversees the design and implementation of the program and includes a *Steering Committee* and an *Engagement & Integration Advisory Table*. The Toronto Central LHIN acts as the liaison between Connected Care and the 5 GTA LHINs (and beyond in context of Ontario Health) promoting adoption and alignment of the program with key system partners.



Connected Care's Steering Committee

Connected Care's Steering Committee is responsible for monitoring metrics and guiding the overall strategy of the program. The committee meets quarterly and on an ad-hoc basis and is comprised of family advisors, executive and senior leadership from the Toronto Central LHIN, SickKids, and Holland Bloorview. In 2020, the Committee also added representation from VHA Home Healthcare and SE Health.



Engagement & Integration Advisory Table

The work of integrating Connected Care into operations of the LHINs and service provider organizations is informed by Connected Care's *Engagement & Integration Advisory Table*. The table assembles at least quarterly, and stays connected between meetings, with a diverse membership from over 50 administrators, educators and practice leads across the GTA LHINs, SickKids, Holland Bloorview, Safehaven and more than 12 unique service provider organizations from across the province. From the outset, Connected Care has been designed to be scalable with input from multiple stakeholders from across the province.

The following provides an overview of each of Connected Care's three service offerings and accomplishments to date.

Paediatric Education

MOHLTC/TCLHIN Deliverable: Competency-based training to home and community care providers

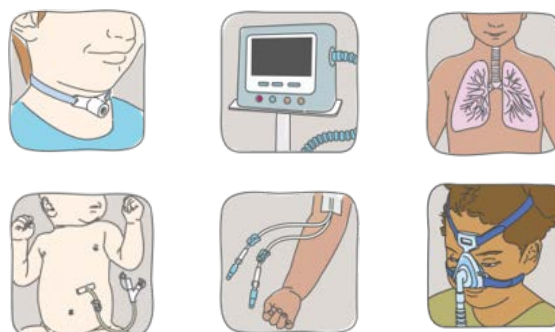
Connected Care provides paediatric education modules to home and community care providers by combining theoretical content with application of knowledge and skills using in person or virtual simulation. These education modules:

- Are delivered by highly trained SickKids paediatric nurses and interprofessional colleagues (e.g. Respiratory Therapists, Physiotherapists).
- Are evidence based, up to date and cover topics encountered most often in paediatric home and community care; and
- Meet the highest adult-education delivery standards by using teaching pathways, safety checklists, videos and other learning objects embedded in a standardized curriculum.



Topics of education modules include:

- Paediatric tracheostomy
- Mechanical ventilation
- Mechanical in-exsufflation
- Vascular access devices
- Pulmonary clearance
- Enteral tubes & therapy
- Pulmonary Physiotherapy



Family Caregiver Education

Connected Care also delivers the same quality of paediatric education to families as it does to home and community care providers. Alignment of what is taught to both groups smooths the way for families to have greater confidence that there is a shared standard of care from hospital to home and community care.

Connected Care’s family education program provides support for caregivers who are preparing to go home from the hospital or require additional support after discharge. Teaching is highly personalized to the unique needs of the families, including:

- Hours of service delivery are into the evenings and weekends, and
- Spaces are fully accessible, in a homelike environment (see picture on the right), that limit interruptions.



This centralized and consistent approach to family education means discharges are more coordinated, families are ready sooner - reducing unnecessary hospital length of stay and decreasing the likelihood of readmission.

Families are also provided access to the *Connected Care Learning Hub* on [AboutKidsHealth](#). This learning hub provides family caregivers with access to multilingual educational materials on a variety of topics that can be shared with others in their home and community care team.

Paediatric Education: Achievements

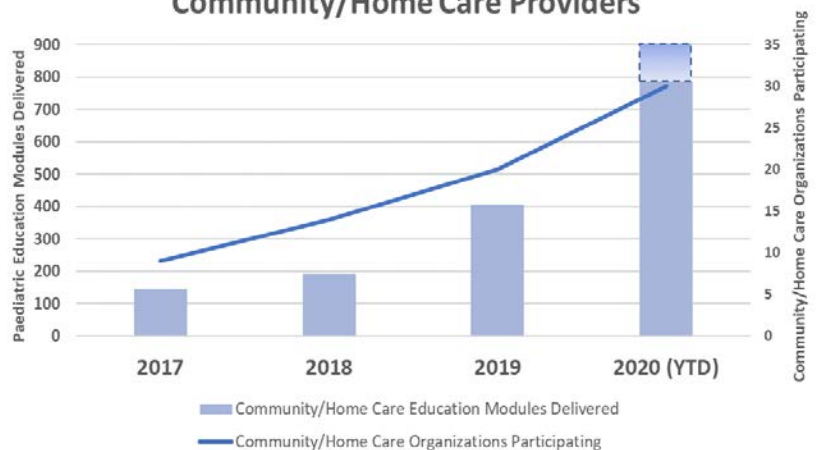
Home and community care provider education

Since 2017, Connected Care has delivered **1529 paediatric education modules to home care providers** – and these numbers have steadily increased, more than doubling year over year since 2018.

In 2020, the program **delivered 900 paediatric education modules**. The number of service provider *organizations* participating in training has also increased from 9 in 2017 to 30 in 2020, across all 5 GTA LHINs and beyond.

Feedback from participants continues to be very positive, with many highlighting the benefits of the different learning modalities (in person workshops and online), the comprehensive curriculum, and the applicability to real life home care scenarios.

Education Modules Delivered to Community/Home Care Providers



“Simulations were very comprehensive and small groups worked well”

- Homecare Nurse

“Great learning scenarios that are applicable to real life settings.”

- Homecare nurse

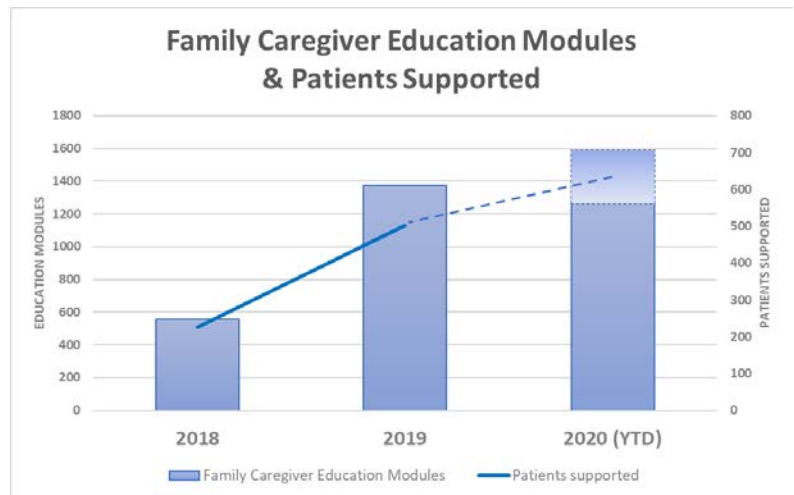
Family Caregiver Education

Since introducing family caregiver education in 2018, Connected Care has **delivered 3218 education modules, supporting over 1200 patients prior to discharge.**

In 2020, the program is on track to deliver approximately **1600 education modules, an increase of over 20% from the year previous, supporting approximately 700 patients and their family caregivers.**

Growth in demand for education is aligned with increasing complexity in the care required for children discharged to home care. More children are leaving hospital dependent on medical technology, and family caregiver education is the cornerstone for safe transitions.

Family caregivers continue to be highly satisfied with the education received and are confident it provides what they need in support their transitions from hospital to home.



Virtual Outreach

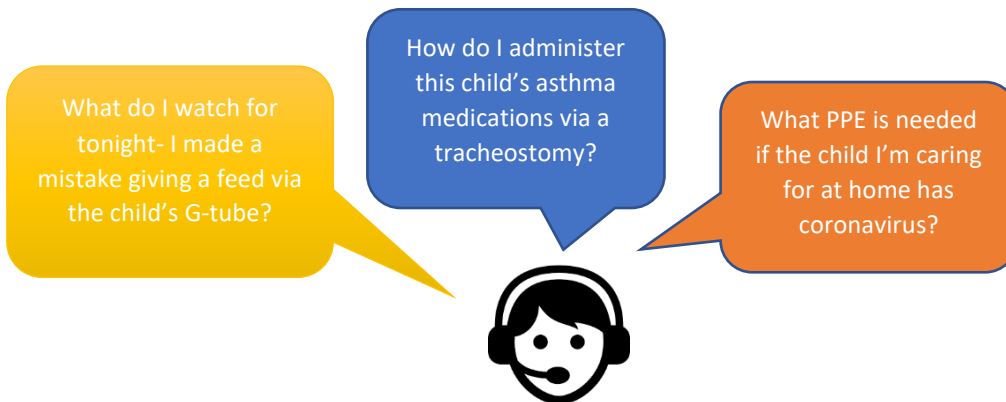
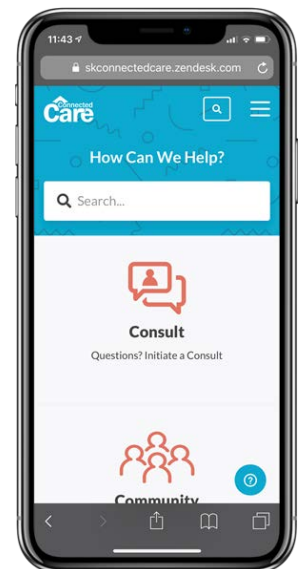
MOHLTC/TCLHIN Deliverable: A 24 hour, 7 days a week consultative model to support and maintain capacity among home care providers

In April 2019, **Connected Care Live** was launched to provide real time support to home and community care providers by expertly prepared SickKids staff through an online platform. Through Connected Care Live, paediatric community and home care providers have access to:

1. **24/7 SickKids Nurse-led Virtual Consultative Services** that are facilitated through an online provider portal and connect home and community care providers with a SickKids nurse in real time.

Respiratory Therapists from SickKids and Holland Bloorview and other interprofessional experts collaborate to help inform evidence-based recommendations when a home and community care provider consults Connected Care Live.

Common topics of consultations include troubleshooting paediatric medical equipment; reviewing specialty education and practicing novel skills; understanding medical orders/ care plan/ medications; and finding information and navigating access to resources.



2. Quick Hits:

Connected Care’s Quick Hits are evidence-based practice updates shared electronically with home and community care providers, at minimum every two weeks. To date, 34 Quick Hits have been created, and topics covered are informed by commonly asked questions arising from the virtual consults. Examples include:

- How to recognize early signs of paediatric sepsis and what actions to take?
- How to promote comfort and safely perform a nasopharyngeal swab?
- What is the correct catheter size when suctioning a child’s tracheostomy?

3. Access to, self-directed, specialized paediatric resources developed in partnership with AboutKidsHealth. Teaching packages, policies and procedures can be downloaded or viewed as often as necessary to reinforce learning and confirm standards of practice.

Virtual Outreach: Achievements

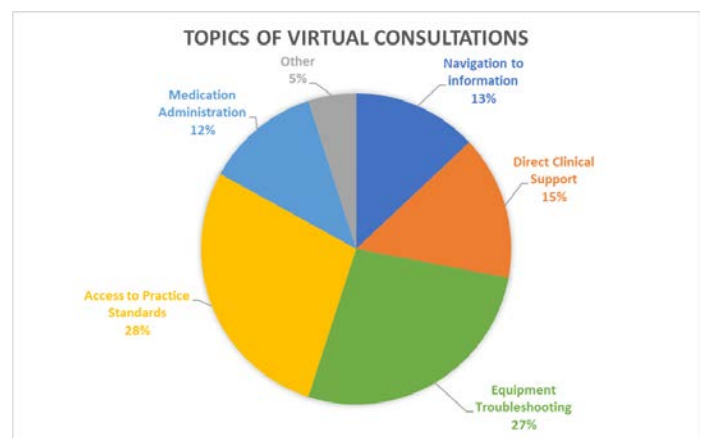
The *Connected Care Live* Community of Practice has grown to include approximately **700 unique users** from across more than 50 organizations and all regions of the province, including the 5 GTA LHINs.

To date, virtual consultations have supported **319 home and community care providers** either while on a shift or before or after to support their questions. These providers have initiated more than **500 real-time consultations** with SickKids nurses and accessed over 1,500 self-directed resources.

“We had a nurse last night use Connected Care Live while we were sleeping to confirm a new order for Owen...not only did she say it was perfect, easy and so fast - she didn't wake us up!! I know this seems soooooo small and so minuscule in the grand scheme of life, but taking away a simple wake up to answer a question goes a long way for some families!” – Family caregiver

The most common questions asked by home and community care providers are those related to accessing evidence based resources (e.g. to review standards, skills); equipment troubleshooting (e.g. blocked tubes, alarms) and direct clinical support for assessments and recommendations when they are on shift with a child.

Community and home care providers access Connected Care via text/talk or video 24/7- while preparing for, on shift or to debrief after a shift or visit in community and home care. Family caregivers often join in on the consults to promote shared learning and partnership.



Bridged Transitions

MOHLTC/TCLHIN Deliverables:

- ***SickKids Transition to Home Care Team to support transition from hospital to home***
- ***Standardized home care coordination processes and tools to reduce variation***

In January 2020 Connected Care launched *Bridged Transitions* to provide a bundle of services for children with the most complex needs and their families as they transition home. In addition to education for families and home and community care providers (described previously), elements within the bundle include:

- Personalized training provided to families and home and community care providers as it is needed at key points of the transition (“just in time”);

- An introduction, period of observation and joint review of the child’s care plan at the bedside with families, hospital and home care providers; and
- Virtual visits between Connected Care and family caregivers within one week of discharge to check-in and offer additional education, care coordination or other needed supports.

To support the delivery of this bundle of care, Connected Care has also developed standardized care pathways that guide families and their hospital and home and community care providers through key touch points and milestones required to prepare for a safe transition home.

The diagram on the right depicts the *Tracheostomy Transition to Home pathway*, developed for children and families transitioning from SickKids to Holland Bloorview Kids Rehabilitation and, ultimately, home with a tracheostomy. The pathway outlines key milestones including when education is provided for family caregivers and home care providers, organizing home supports (i.e. secure funding, acquiring equipment) etc.

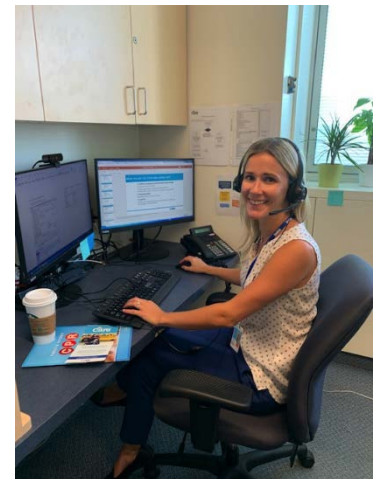
Through Bridged Transitions, Connected Care also supports greater system integration by supporting health providers across sectors to work together by utilizing standardized order sets, common curriculum and documentation tools across teams. This integration is further supported through joint weekly rounds, shared professional development, and the physical colocation of hospital and home and community care staff.



Bridged Transitions: Achievements

Connected Care now offers the bridged transition service bundle to approaching 100% of service providers supporting families transitioning home with nursing services and in 2020 has:

- Delivered over **100 “just in time” personalized training/care planning sessions** in partnership with families and their home and community care providers at key points during the transition from hospital to home care.
- Conducted over **250 virtual visits post discharge** to support the transition home, and this number is growing as demand for Connected Care is accentuated with increasing challenges to staffing in the home and community care sector.
- Supported over **30 transitions** in 2020 for those on the Family Managed Care funding model across the Province, and other novel family-centred care models (e.g. use of unregulated caregivers)



Scalability of Connected Care

While Connected Care’s services were initially focused on the five GTA LHINs (Central, Central East, Mississauga Halton, Central West and Toronto Central), the program was designed from the outset to be scalable provincially.

Since 2019, and after the development of Connected Care’s website and other communication platforms, requests for education and practice consultation have come in from across the Province. (e.g. Northern Indigenous Health Units, other LHINs and Children’s Treatment Centres and Paediatric Hospitals beyond the GTA).

On many occasions, Connected Care has successfully implemented service delivery for children not followed by SickKids and into regions where service providers commonly support children discharged from more than one paediatric hospital (e.g. Hamilton Niagara Region).

Connected Care supporting the Covid-19 Pandemic response

Expanding access to more virtual solutions and *Connected Care on the Go*

To support physical distancing during the Covid-19 pandemic, Connected Care quickly pivoted to enable full access to its education programming online. Onsite education modules were redesigned to be offered through real-time online classrooms, videos and webinars. *Connected Care on the Go* was also created to enable rapid delivery of paediatric training supplies to remote learners.

Rapid updates and practice alerts needed in the pandemic

Connected Care also developed Covid-19 related practice updates and alerts to its 700+ Community of Practice, informed by questions frequently asked by families and home and community care providers. These Quick Hits have also enabled family readiness for more virtual health care visits, another consequence of the pandemic.

COVID-19 guidelines for the delivery of home care services for children with medical complexity at school

Commissioned by Ontario Health Toronto Region, Connected Care partnered to develop back to school guidelines for children with complex medical needs. The guidelines inform recommendations for a safe return to school for these children including those with aerosol generating medical procedures, recognized to be a group at high risk for severe disease and spread of Covid-19.

Education and practice needs of shelters and congregate care sites

Connected Care is also collaborating to support nurses working in Covid-19 Recovery Hotels run by the Inner-City Health Associates. Connected Care Live is being leveraged to provide 24/7 support for nurses caring for children discharged from SickKids to these congregate living settings.

COVID 19 Testing sites

Connected Care has also led the development of a partnership between SickKids and Holland Bloorview Kids Rehabilitation Hospital, to create two Covid-19 testing sites to make testing available for children with medical complexity and children with developmental conditions.



INNOVATION, RESEARCH & EVALUATION

Connected Care has also been awarded various innovation and research grants to enable a robust evaluation of the program. These grants include:

- **Transitions in Care Grant**, awarded by Canadian Institute of Health Research (CIHR) will evaluate Connected Care on healthcare utilization, and the experience of patients and family caregivers.
- **Connected Care on the Go!** awarded by Registered Nurses Foundation of Ontario will test implementation of a novel delivery service to support hands on training for remote learners.
- **Baxter Home Care Grant** awarded by SickKids Foundation will evaluate the Connected Care Live platform and related resources to identify and implement improvements to the service offering.

