A Message from SickKids CEO & President

Back in the very early days of the Pandemic, we sent a small mobile team out into the community to help vulnerable populations gain access to COVID-19 testing and IPAC supports in congregate settings. As the Pandemic continued to evolve, our efforts expanded, and our COVID-19 Community Outreach strategy grew thanks to the tremendous dedication, compassion, and nimble resilience of the Outreach team.

Rising to every COVID-19 wave and challenge, this team was instrumental in developing resources, and providing COVID testing services and supports directly to the community. As a result of their collective efforts, SickKids gained a reputation as a trusted leader in school and community-based COVID-19 PCR testing as well as paediatric vaccination.

I am tremendously grateful and proud that SickKids was able to answer the call and provide this level of support to our community. I hope that the strong partnerships and connections that have been built over the last few years give rise to new opportunities and the lessons we have learned help us launch future initiatives that will continue to improve access to child and youth health services through community outreach.

A Message from COVID-19 Outreach Leadership

Resilience is all about our ability to face challenges head on, to change course, and to continue moving towards a goal as strong as, or hopefully stronger than, we were before. No truer words could be used to describe the COVID-19 Outreach team who seemed to be one step ahead of every challenge and always steadfast in figuring out how best to meet the needs of children, youth, families and staff in schools and community settings throughout the Pandemic.

It has been our profound pleasure and privilege to be part of the COVID-19 Testing, Vaccination and Community Outreach Program. We are excited to share this report which captures the various outreach activities and serves to highlight the talent and achievements of such an amazing and resilient team.
Acknowledgements

We gratefully acknowledge and thank the many persons who contributed to the success of this program. In particular, we appreciate the tremendous leadership and support from the following:

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COVID-19 Testing, Vaccination and Community Outreach Centre and Vaccine Consult Service
Registered Nurses, Child Life Specialists, Patient Information Clerks, Security and Courier Service Partners

Patients, families, nurses, physicians, surgeons, educators, allied health professionals, pharmacy, microbiology lab, operations, financial and administrative staff at SickKids

Children, youth, families, clients, and staff across the community
Introduction

At the beginning of the COVID-19 Pandemic, Ontario Health (OH) put out an urgent call to action seeking partners to help improve access to COVID-19 testing as well as provide infection prevention and control supports in community settings. The Hospital for Sick Children (SickKids) responded immediately to the call, deploying a small mobile team of nurses to support COVID-19 testing and IPAC consultation in shelters and congregate living centres. From there, the team grew substantially, and the community support strategy evolved into a comprehensive COVID-19 Testing, Vaccination and Community Outreach Program.

This report provides an overview of the various initiatives and approaches taken to execute those initiatives throughout each wave of the COVID-19 Pandemic. Program accomplishments and subsequent lessons learned that were gathered from an evaluation of the SickKids COVID-19 testing, vaccination, education, and advisory efforts highlight key areas of focus as well as core principles that can be applied to future initiatives focused on improving access to health services for children, youth and families through community outreach.

Defining Outreach

Outreach is a broad term encompassing a wide range of activities. These activities may include actual delivery of services and/or dissemination of information all of which is intended to reach populations that may not otherwise have access to those services or information\(^1,2,3\).

When outreach is envisioned as a tool to help fill a gap, it is most often designed to accomplish one or more of the following goals:

- Direct delivery of health services or products
- Education to inform the target population, increasing their knowledge and/or skills
- Advice and education to inform people who interact with the target population
- Establish beneficial connections between people and/or organizations

Regardless of the underlying goal however, the key to effective outreach lies in how well the issue of access is defined and addressed as part of the intervention. Understanding the ease with which people can gain access to services and/or information; the barriers that keep them from it; and the opportunities that can be provided for them to take advantage of it, become critical in the planning, development, and successful delivery of any outreach effort\(^4\).
SickKids COVID-19 Testing, Vaccination and Community Outreach Program

During the first wave of the Pandemic, SickKids sought to align the principles of equity, diversity, and inclusivity in the design and delivery of a ‘mobile’ outreach strategy. This strategy was intended to facilitate access to COVID-19 testing for children, youth and adults living in shelters and congregate settings. All activities were undertaken in a manner consistent with protecting privacy and confidentiality as it related to the knowledge of possible medical/therapeutic needs of individuals and other personal health information.

As the Pandemic evolved, the strategy culminated into a comprehensive Outreach program with a mission to enhance access to COVID-19 testing, information and vaccination supports for the broader community of children and youth. Figures 1-3 provide an overview of the program’s history and key milestones from Year 1 launch (May 2020) to the writing of this report in Year 3 (October 2022).

Figure 4 illustrates the various components of the program which include: Community Support Strategy; IPAC Resources and Support; School and Community Test-kit Program; COVID-19 Testing Centre (CTC) and Child and Youth Vaccination Strategy. A summary of key outcomes from each program component is provided in Figure 5 with further details describing the activities, resources and capacity that was built and continually refined over time.
**Figure 1: Program History Year 1**

- May 2020: Strategy begins for congregate care settings (testing & IPAC)
- June 2020: SickKids COVID-19 Testing Centre (CTC) opens
- July-Aug 2020: Mobile team launches in shelters & congregate sites
- Sept 2020: SickKids staff “Back-to-School” study
- Oct-Nov 2020: Partnership with Women’s College Hospital providing community outreach testing in schools as part of Ministry of Education (MoE) pilot & response to TPH testing/outbreak recommendations
- Dec 2020: Launch of saliva PCR testing at CTC & schools
- Jan 2021: SickKids partners with Holland Bloorview to provide testing for children with medical/neuro complexities
- Feb 2021: SickKids deploys own mobile team on assignment
- Mar 2021: MoE testing pilot continues; demand for testing increases
- Apr 2021: Return of on-site school testing

**Figure 2: Program History Year 2**

- Apr 2021: Day/Overnight camp strategy
- May 2021: New saliva PCR receptacles
- June 2021: SickKids becomes lead testing site for all childcare centres in Toronto in collaboration with Michael Garron Hospital
- June-Sept 2021: Launch of Saliva PCR Test-kit Program in 700+ schools/35+ shelters/daycare centres
- Oct-Nov 2021: Vaccine confidence clinic launched
- Dec 2021: 1st Vaccine Clinic for oncology patients with PEG-asparaginase allergies aged 12+ (June 20)
- Jan 2022: SickKids staff “Back-to-School” study
- Feb 2022: Expansion of CTC staff to 30 people to accommodate higher volumes of testing
- March 2022: First whole school testing requests from OH with mobile team deployed to school sites
- April 2022: SickKids CTC volunteered at TPH Toronto Vaccine Day Mass Vaccination Clinic at Scotiabank Arena (June 27) with further supports for other mobile clinics (Lawrence Centre, Kipling, Black Creek Region, Child Welfare clinic)
- May 2022: Computerized result reporting program “Python” implemented
- June 2022: Collaboration with ID on genMARK Study
- July 2022: SickKids & Toronto Shelter Network Family Matters Vaccine Panel (focus on 5-11-year-olds)
- Aug 2022: SickKids team administers “Home Bound” vaccine
- Sept 2022: SickKids and St. John’s Ambulance to initiate a therapy dog program for needle phobia/ anxiety children getting vaccinated at the CTC
- Oct 2022: First co-ordination of COVID-19 vaccine administration for patient undergoing sedation for another procedure
- Nov 2022: Collaborated with allergy team & medical lead to administer COVID-19 vaccines to children with allergies or previous reactions to COVID-19 vaccine
- Dec 2022: Weekly webinars to onboard more sites to SickKids COVID-19 Saliva PCR Test-kit Program

**Related Information**

- Collaborated with St. John’s Ambulance to initiate a therapy dog program for needle phobia/ anxiety children getting vaccinated at the CTC
- First co-ordination of COVID-19 vaccine administration for patient undergoing sedation for another procedure
- Collaborated with allergy team & medical lead to administer COVID-19 vaccines to children with allergies or previous reactions to COVID-19 vaccine
- SickKids COVID-19 Saliva PCR Test-kit Program
- Start of the pilot for the COVID-19 Vaccination Under Sedation
- Assisted with recruitment of paediatric study participants in partnership with the Respiratory Medicine department for “LiveCovidFree” study
- Pilot VERTO for Ontario Health with SickKids Staff Family Testing
Figure 3: Program History Year 3

- Recruited paediatric study participants in partnership with the Infectious Disease department for a study on the Viral dynamics of the SARS-CoV-2 Omicron variant
- RAT Travel Testing Program begins for SickKids Staff & Staff Families
- Virtual education & multiple site visits for TPH to observe paediatric vaccination at CTC
- Survey to Shelters and Congregate Care sites to gather feedback to improve future testing/IPAC programming & support
- Recruitment of SickKids COVID-19 Saliva PCR Test-kit Program with schools, to transition to RAT testing as per provincial guidance
- Vaccine Consult Service held webinar series for community partners with focus on:
  - Women who are pregnant, breast feeding or trying to conceive
  - Child and Youth
  - Shared SickKid’s new Virtual Urgent Clinic information with community partners
- Virtual presentations for TPH on strategies to support Infant and Childhood Vaccination
- Vaccine Consult Service provided in person presentations on the COVID-19 Vaccine to Violence Against Women Shelters on site
- Virtual presentations on Strategies to Support Infant and Childhood Vaccination for the Red Cross and Niagara Health Region
- Quality Improvement submission for the Pathway for the COVID-19 Vaccination Under Sedation
- Proposal for COVID-19 mobile vaccination clinics with Shelter, ELCCS and priority 1 schools
- Back-to-School Vaccine Days on site at SickKids focusing on children aged 6 months to 5 years and their siblings
- Transition of CTC to CVC with focus on vaccination outreach

Figure 4: Program Components

COVID-19 Testing, Vaccination and Community Outreach Program

**Community Support Strategy**
- Mobile testing & IPAC education in shelters/congregate settings
- Partnership with WCH providing MD as well as NP/CLS staff to enhance child/family-friendly practice and extend hour at their CAC
- Symptomatic/asymptomatic onsite saliva testing in schools, shelters, congregate care sites

**IPAC Resources & Support**
- Playbooks
- Resource Toolkit
- Webinars
- Virtual Townhalls
- Shelters/congregate settings
- MCCSS Partnership Table

**School & Community Test-kit Program**
- Saliva PCR test-kits deployed in shelters/congregate care settings and early learning child-care centers
- Camp testing strategy for child and youth day/overnight summer camps
- Saliva kit testing in >650 schools across Toronto region

**COVID-19 Testing Centre**
- Pre-procedure testing
- Symptomatic/Exposed staff testing
- Immediate staff family testing
- Travel testing
- Children with Medical/Developmental Complexities
- SickKids patient testing
- Ronald McDonald House
- Emily’s House
- Childcare Centres

**Child & Youth Vaccination Strategy**
- Playbook
- Specialty vaccine clinics
- Vaccination of children with medical complexity, needle-phobia etc.
- Supporting community-based, mass vaccination clinics
- Ministry-funded COVID-19 Vaccine Consult service
- Planning and roll-out of age 5-11 and under age 5 vaccination

*Research, Education & Partnerships*

* Ontario Health; Toronto Public Health; Women’s College, Michael Garron Hospitals, Scarborough Health Network, Ministry of Education, multiple school boards and more!
### Key Outcomes

#### Mobile Swab Testing Service
- Completed 3 waves of testing within the 1st year of the COVID-19 Pandemic specifically in Attendant Support/Disability Care settings, Child & Youth Mental Health Residential Services, & Family/Youth Shelters
- Connected with hospital partners to review & refine shelter list provided by the TC LHIN resulting in realignment of shelter’s based on pre-existing partnership with the hospitals & sites more aligned to SickKids expertise
- E-mail invitation extended to shelters for ‘proactive/universal’ testing; limited uptake owing to several shelter operators not having the same sense of urgency to have their residents tested
- Collaborated with Planned Parenthood (PPT) & Inner-City Health Associates (ICHA) to review the shortlisted shelter sites for post-test disclosure supports & disposition planning for clients testing positive for COVID-19
- Connected weekly with Shelters & Congregate Support Coordination Table to understand current state of testing sites, coordination of efforts, lessons learned, etc.
- Better understanding of system players & coordination of activities shifting Coordination Table to a ‘go-to’ resource for information sharing
- Linked with the SickKids Connected Care team to explore how tools developed to support nursing assessment at community recover sites (i.e., QuickHits resources) could be extended to other shelters to prepare them for COVID-19 Wave 2
- Connected with SickKids inpatient nurse practitioners (NPs) to seek opportunities for pre-procedural patient mobile testing; engaged SickKids mobile team to support pre-procedure testing during SickKids service ramp-up
- Partnered with external community transportation agency (i.e. Circle of Care; Sprint i-RIDE Driver) to provide ‘in-kind’ service for SickKids MST team; daily huddles determined logistics of geographical travel & driver scheduling for Next-Day service

#### Infection Prevention and Control
- The original six High-Priority ‘other’ Congregate Care facilities contacted for one or more of the following:
  - Review policies & procedures (evidence-based, guidance)
  - Share resources related to Point-of-Care-Risk Assessments, Donning and Doffing PPE, Pre-and Post- Work Health and Safety Tips, etc. Refer to Appendix I for additional information.
  - Develop shared resources e.g., PPE Summary Charts (e.g., types of masks for different scenarios), Return to Work Scenarios, Environmental Cleaning Advice
  - Collaborated with WCH, CAMH, & HBKRH as possible partners for supporting IPAC offerings.
- IPAC support provided (July 2020) to 3 Attendant Care agencies (i.e., Safehaven; March of Dimes; PACE) including review of organizational policies & procedures, educational resources, & virtual Town Hall meetings with their leaders & staff in attendance
- Throughout subsequent waves of the COVID-19 Pandemic, provided ongoing IPAC support & consultation (mainly via the MCCSS table meetings)
<table>
<thead>
<tr>
<th>Key Outcomes</th>
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<tbody>
<tr>
<td><strong>SickKids Saliva PCR Test-kit Program for School-based Testing</strong></td>
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<tr>
<td>• Supported onboarding &amp; maintenance of school-based testing for all 651 partnered schools</td>
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<tr>
<td>• Collaborated with OH &amp; PHUs to support outbreak &amp; school wide testing recommendations</td>
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<tr>
<td>• Provided ongoing educational webinars for school principals, administrators &amp; school community covering a variety of topics including the Saliva PCR Test-kit Program, COVID-19 vaccine for children/youth, &amp; Public Health Testing Recommendations</td>
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<td>• Collaborated with UHN, OH &amp; various hospital partners to engage principals &amp; promote school-based COVID-19 vaccine clinics</td>
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<tr>
<td>• Collaborated with WCH &amp; community ambassadors to promote vaccine uptake in high priority neighbourhoods with targeted COVID-19 vaccine educational drop-in webinars for school communities</td>
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<tr>
<td><strong>SickKids Saliva PCR Test-kit Program for Shelters, Camps and Early Learning and Child Care Services</strong></td>
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<tr>
<td>• Supported program onboarding &amp; maintenance of community-based testing for 50+ shelters, 25 camps &amp; 14 ELCCS sites across the GTA</td>
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<tr>
<td>• Collaborated with OH &amp; PHUs to navigate ongoing changes with PCR testing eligibility &amp; guidance</td>
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<tr>
<td>• Provided ongoing educational webinars for program administrators &amp; community members, to provide evidence-informed information about the Saliva PCR Test-kit Program, IPAC guidance, as well as COVID-19 vaccination</td>
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<td><strong>SickKids COVID-19 Vaccine Program and COVID-19 Vaccine Consult Service (VCS)</strong></td>
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<tr>
<td>• Supported development/implementation of COVID-19 vaccination program for specialized SickKids populations with initial NACI guidance &amp; MOH approval of the Pfizer BioNTech COVID-19 vaccine for the 12-17 population</td>
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<td>• Creation of policies &amp; procedures, as well as development of clinic operational workflow in partnership with the Pharmacy at SickKids</td>
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<td>• Program expansion with the subsequent MOH approval of the Pfizer BioNTech COVID-19 vaccine for 5-11 population, &amp; Moderna COVID-19 vaccine for six months- under 5 population</td>
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<td>• Development of sedation pathway</td>
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<td>• In the fall of 2022, staffing &amp; program restructure &amp; shift in operational focus to COVID-19 vaccine administration on-site at SickKids</td>
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<tr>
<td>• Supported the program development, launch &amp; ongoing maintenance of the VCS, in collaboration with the SickKids Infectious Diseases, Communications &amp; Process Improvement teams, as well as MOH</td>
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<tr>
<td>• Program expansion to support those pregnant, breastfeeding or looking to conceive, in collaboration with SHN VaxFacts clinic</td>
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<tr>
<td>• Ongoing development of educational resources &amp; tools, as well as provision of live or virtual education sessions</td>
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Community Support Strategy

Organizations that fall within the ‘other’ Congregate Care sector include congregate and assisted living settings and institutions such as shelters, daycare for essential workers, group homes, community supported living, disability-specific communities/congregate settings, short-term rehabilitation sites, and hospices. These organizations often face significant constraints with respect to resources and coordination of care across the broader healthcare sector which can challenge their efforts to deliver high-quality, safe care to their clients.

The COVID-19 Pandemic exacerbated these challenges and many staff and leaders across the Congregate Care sector reported feeling overwhelmed at the pace by which government directives and guidance documents came forward as new evidence about the SARS-CoV-2 virus emerged. Some felt ‘cut-off’ from the system and ‘utterly alone’ as they navigated the guidance and sought to adapt various documents and practices to suit their unique settings and care models while struggling to educate staff, secure appropriate resources and PPE and maintain the safety and well-being of their clients.

Given the vulnerable client populations served by this sector, the threat of COVID-19 exposure and spread was inherent. Many clients could not easily or safely travel to a COVID-19 Assessment Centre (CAC) to be tested. As well, the very nature of their health status heightened their risk of infection and poor outcome. Individuals dependent upon portable medical technology (e.g., mechanical ventilators, feeding pump, oxygen) faced additional complexity in traveling to a CAC. As the Pandemic continued to evolve, these factors prompted an expressed need for additional support and expertise to be deployed into the community to manage mobile COVID-19 testing and help tailor Infection and Prevention Control (IPAC) measures to individual settings across the sector.

In response, SickKids leadership felt compelled to answer the call to action from OH and organize a Community Support Strategy (CSS) that would assist vulnerable children, youth, and adults with disabilities during the first wave of the Pandemic. SickKids was particularly well suited to support such a strategy due to the availability of subject matter expertise specific to caring for medically complex and technology-dependent children and youth; existence of strong organizational IPAC practices and Occupational Health and Safety guidance; as well as a proven track-record of partnerships, capacity building and knowledge translation.

A CSS team was subsequently established and tasked with the planning, executing, and monitoring efforts in response to requests from Toronto Public Health (TPH) for Mobile Swab Testing (MST) in Shelters and select Congregate Care settings (April 22 to July 7, 2020). During this time, an interprofessional CSS team traveled throughout the Toronto region testing over 200 clients and almost 100 staff across 18 sites in the community.
In planning for mobile swab testing in the community setting, the CSS team organized several activities focused on better understanding the needs of the community; ensuring the resources and guidance were in place to prepare the team for community visits; and establishing point of care risk assessment and safety measures for the mutual protection of the team and community clients. Many of the tasks that were required to launch the mobile swab testing team often occurred in parallel given the interdependencies and outcomes that served to inform next steps. Specific activities throughout the duration of the initiative were revisited multiple times to ensure alignment with existing and new Ministry guidelines. Refer to Appendix A for further details regarding the schedule of planning activities.

Through a series of consultations with stakeholders in other acute care hospitals, community, and government agencies, the SickKids CSS team developed a thorough understanding of the environmental conditions, operating models, and human resources required to respond to the COVID-19 Pandemic at ‘other’ Congregate Care settings. Accordingly, a suitable ‘end-to-end’ framework of centralized intake, specimen collection, lab processing, result reporting/disclosure and post-test supports was put in place at SickKids. Centralizing the process rather than engaging different healthcare agencies and laboratories in the community served to streamline MST and helped expedite reporting and disposition planning. Refer to Appendix B for a description of the end-to-end Mobile COVID-19 Testing Process.

Following delivery of CSS supports to various congregate care settings, a debrief session was held with the organizations that were supported by SickKids. Key themes emerging from the discussions included: an expressed desire for continued and sustained partnership with SickKids to work through other emerging respiratory/other infections; and immense gratitude towards SickKids for prioritizing the vulnerable community sector to support. An additional finding from the session revealed the great experience that SickKids CSS and support staff gained through community outreach. Many team members considered the opportunity to engage in humanitarianism and to actively contribute to the health and wellbeing of the broader community a unique addition to their professional portfolio.

**Partnership with Women’s College Hospital**

With the unexpected and pervasive presence of COVID-19 in the community, flexibility was critical, and partnerships became essential in supporting work outputs. By the fall of 2020, cases continued to rise and demand for COVID-19 testing increased sharply. SickKids agreed to partner with Women’s College Hospital (WCH) to help expand the hours of operation at their Grenville Street CAC and manage the dramatic surge in testing volumes. Eight SickKids physicians volunteered to join the WCH CAC workforce and were subsequently credentialed and oriented to deliver both telephone and in-person clinical assessments as well as onsite COVID-19 swab testing. SickKids also assigned a Nurse Practitioner (NP) and a Child Life
Specialist (CLS) to work with the Centre for a period of 2 months. During this time, they collaborated with WCH staff to identify opportunities to improve processes. Sharing their expertise and advice, the NP and CLS provided education, and helped developed resources to help WCH create a child friendly testing environment for families who visited the CAC.

In addition to supporting the CAC, SickKids joined forces with the WCH mobile team to provide onsite COVID-19 testing in schools to help students and staff remain in class and prevent school closures. Leveraging the knowledge and experience gained from testing in congregate care settings, the combined team supported hundreds of students and staff recommended for testing by TPH in schools across the Toronto region throughout the fall.

SickKids introduced saliva PCR testing as a testing method offering a more accessible and less-invasive alternative to the traditional Nasopharyngeal (NP) swab. The SickKids team gradually took on more independent mobile assignments and were instrumental in leading the development of a school-based testing strategy in collaboration with Michael Garron Hospital (MGH), WCH, TPH, OH and various school boards. The resulting school-based testing strategy provided comprehensive mobile testing, case management and IPAC support to schools.
recommended for testing by TPH. Hospital partners were assigned to various schools based on their respective catchment areas and recommendations for testing from TPH were centrally coordinated by the OH Operations leads.

**IPAC Resources and Support**

As part of the early CSS, six high-priority organizations were identified during consultation with OH, TPH and the Ministry of Children, Community and Social Services (MCCSS). MCCSS was directly connected with several vulnerable congregate care organizations serving women, children, and youth, who were significantly impacted by COVID-19. As a result, MCCSS reached out to SickKids requesting organizational expertise and child friendly approaches to improve compliance with testing and help create a more positive testing experience.

SickKids approached the operators at the identified organizations asking them to complete a needs assessment to highlight their unique requirements. This enabled the SickKids CSS team to identify common priorities and then collaborate with the SickKids IPAC and Occupational Health and Safety teams, to customize IPAC education and coaching based on their specific organizational needs. A review of site floor plans, organizational policies, and audit practices helped to ensure IPAC measures and recommendations were practical and sustainable within each setting. The education was subsequently delivered in the form of virtual Town Hall meetings with a Question-and-Answer period allowing opportunities to address specific concerns from participants.

All six high-priority organizations were offered IPAC consultation supports. Three Attendant Care organizations and their associated sites agreed to participate with SickKids. Support was tailored to the practices of their organizations, and included:

- One-on-one review of existing IPAC practices and organizational policies/procedures to confirm alignment with newest government guidance, and available evidence
- Provision of recommendations for IPAC Champion scope of practice, roles and responsibilities, accountabilities, and the peer-supported auditing of IPAC practices (peer-to-peer giving and receiving feedback)
- Analysis of site-specific floor plans, logistics of workflow, placement of PPE stations in the homes, co-location of spaces and safe usage, etc.
- Sharing of tailored ‘how-to’ resources related to Point-of-Care-Risk Assessments, Donning and Doffing PPE, Pre- and Post- Work Health and Safety Tips, etc.
- Development of shared resources, including but not limited to: PPE Summary Charts (e.g., types of masks for different scenarios), Return to Work Scenarios, Environmental Cleaning Advice
- Planning webinars to address ongoing IPAC questions from front line staff, and clients/residents and families

Appendix C highlights specific examples of the service provided for two community sites. Overall, organizations reported that they found SickKid’s approach to be impactful as it
addressed site and/or organization specific IPAC and Occupational Health and Safety concerns and everyday ‘pain points’ in their workflow and operations (see Appendix C).

Several organizations noted that their partnership with SickKids had been a tremendous help in navigating through the challenges created by COVID-19. Some of these challenges were related to lack of access to vaccine and testing resources, vaccine hesitancy, staff shortages, and PPE supply and demand. Additionally, returning to work, daily testing and screening guidelines were constantly changing which made it difficult for many shelter staff and residents to adapt. Over time, it became quite rewarding for SickKids to witness the evolution of congregate care settings as they gained more knowledge and confidence in building their IPAC capacity and were able to manage staff and client anxiety more effectively as COVID-19 cases continued to rise. A testimonial from one of the supervisors at Massey Centre highlights the benefit of partnering with SickKids: ‘As a small agency working with young children/mothers, but with no in house nursing or IPAC expertise, SickKids support has been incredible as we navigate the ever-changing COVID situation. The timely response, input from individuals with various roles (nursing; IPAC; HR) allowed Massey Centre to communicate policies, procedures, etc. with more confidence. We very much appreciate being respected as a community partner and though our work is so different from SickKids, that everyone tries to see things from our lens.’ Additional feedback from stakeholders is summarized in Appendix D (see Appendix D).

**MCCSS-SickKids Partnership Table**

As the SickKids Outreach program continued to grow and partnerships became more established, opportunity arose for SickKids, MCCSS, the Massey Centre and the Violence Against Women Shelter Network to meet on a regular basis. Subsequently, the SickKids-MCCSS Partnership Table was established providing a forum for further consultation, education and capacity building relative to IPAC and Occupational Health and Safety practices in the sector. The following objectives were set and served as a framework for meetings and discussion:

- Collaborate to address issues impacting IPAC, Occupational Health and Safety, and Mental Health and Wellness in shelter and congregate care settings related to Pandemic and endemic COVID-19
- Enhance client and caregiver safety and experience through stakeholder engagement that is participatory, evidence-based, client-focused, with trauma-informed language
- Explore other opportunities for collaboration beyond COVID-19 response efforts to extend community outreach and provide meaningful and appropriate consultation and supports to community settings and the clients they serve

Stakeholders would meet biweekly or monthly, to review action items from the previous meeting’s agenda as well as update members on COVID-19 in their communities. Resource sharing was a key element in the meetings and allowed for all members to collaborate and gain knowledge on the most recent guidelines, initiatives or educational sessions taking place. One of the resources that was developed by SickKids included an IPAC Support Playbook for Childcare Centres.
Recognizing that Childcare Centres have unique IPAC requirements to support the health and safety of their staff and children, the Playbook helped explain key guidance and recommendations in a practical way to enable adaptation to a community setting (see Appendix E). All health and safety information used to establish the Playbook aligned with OH and TPH guidance recommendations for childcare centers as well as agencies that have childcare spaces embedded within their infrastructure. Centre management and staff were encouraged to use the Playbook as resource to support education and training, policy, and procedure development, as well as providing visual reminder tools for various IPAC and safety practices.

**School and Community Test-kit Program**

From September 2020 to June 2021, over 700 schools across the Toronto region had positive cases of SARS-CoV-2 identified where classes were dismissed, and students and staff were recommended for testing. Many of these classes had single cases and recommendations for testing were made in collaboration with local Public Health Units (PHU). As case counts increased, and some schools experienced multiple cases or outbreak scenarios, the Ministry of Education (MOE) launched a 4-week pilot to look at enhancing access to testing for students, staff, and families in schools that were located within neighbourhoods considered at higher risk for COVID-19 transmission and outbreaks.

The MOE pilot provided opportunity for testing partners and schools to work together to determine the best approach for that school community. Testing uptake was reviewed based on a variety of factors including testing location, modality, and positivity rates. Additional factors associated with the onsite testing process were reviewed to identify opportunities for improvement. These factors included intra-organizational huddles (i.e., school, PHU, school board, testing partner); documentation (i.e., development and management of line lists – spreadsheets summarizing information about persons who may be associated with an outbreak); consenting process; permitting and facility access; school set-up and logistics; and results reporting.

Learnings gathered from direct field experience as well as data from the
MOE pilot, indicated a need to improve access and uptake of testing for staff and students to better mitigate the risk of COVID-19 transmission in schools. SickKids responded by making COVID-19 PCR saliva test-kits available in schools which served as a less invasive and more tolerable method of sample collection with a similar sensitivity as compared to traditional NP swabs.

From October 2020 to April 2021, SickKids supported over 100 schools with testing based on recommendations from TPH when there was a known, close contact exposure or a broader cohort and/or ‘whole-school’ testing recommendation. Continuous refinement of the testing process helped to further inform the SickKids approach which was then extended to include symptomatic testing of staff and students. A pilot was undertaken, and self-collection saliva kits were distributed to 12 schools. The selection of these schools was based on their experience with case and cohort testing using saliva kits and the willingness of the principals to implement the symptomatic program for their respective school.

The outcomes of the pilot proved favourable in terms of increased uptake of testing and reports of more positive experiences prompting plans for further implementation of the Saliva PCR Test-kit Program to schools within SickKids catchment. In April 2021, there was a dramatic rise in the number of COVID-19 cases across the community resulting in the closure of schools to in-person learning by the Ontario government. Subsequently, roll-out of the program was limited only to those schools and classrooms serving students and families with special needs who were unable to transition to virtual learning.

**Special Needs Schools and MEDD Classrooms**

SickKids worked with school principals to launch the COVID-19 Saliva PCR Test-kit Program in 55 Special Needs schools and MEDD (Multiple Exceptionalities/Developmentally Delayed) classrooms across the Toronto, French, and Catholic District School Boards.

Webinars were held on a biweekly basis to inform staff, students, and families about the program prior to launch at a specific school. Over 5,000 pre-packaged, COVID-19 saliva PCR test-kits with instructions were subsequently deployed to 45 schools to support the following testing scenarios in alignment with public health guidelines. These scenarios included:

1. Symptomatic testing of staff, students, and immediate household members
2. PHU recommended testing of exposed contacts and/or cohorts
3. Weekly asymptomatic testing of staff

School personnel were responsible for distributing the kits to staff and students as per the testing scenarios. Samples were returned to the designated drop-off at the school for pick-up by a courier service that was organized by SickKids for transport to the SickKids lab.

SickKids lab capacity enabled results reporting within 24 hours of submission of samples. Families were given instructions on how to access results with or without an OHIP card.
however, all individuals who tested positive or had an indeterminate sample received a direct telephone call from our NP and/or the Medical Lead for the program. This enabled swift implementation of TPH self-isolation protocols which highlights a strength of the program in helping to stop the chain of transmission particularly among individuals who may have been asymptomatic at the time of testing.

**Learnings from the Special Needs and MEDD Classroom Pilot**

Ensuring program success required implementation of strategies beyond the actual testing and included ways to engage the school community and tailor the program to meet the needs of staff, students, and families. SickKids developed various educational resources and used various forms of communication in multiple languages (e.g., live and video recorded educational webinars; posters; e-mails; newsletters etc.) to highlight test-kit program goals; instructions for sample collection; labeling and documentation; as well as accessing results.

Comprehensive e-mails were sent to principals with a series of documents included to help facilitate successful launch and implementation of the program. Additional support was provided by the SickKids team to help with program recruitment, onboarding, and follow-up to ensure issues were dealt with in a timely manner.

There were instances where English was not the primary language for some students and family members. This presented a challenge in understanding instructions with regards to sample collection and completion of the lab requisition. To address any barriers to testing associated with language, the SickKids team used Language Line to help with verbal instructions via telephone. Pictures, posters, and videos were also used to graphically demonstrate correct sample collection technique and documentation. Testing instructions were translated in the languages requested by participating schools including Cantonese, Mandarin, Hindi, Punjabi, Spanish, Arabic, Portuguese, French, Armenian, and Bengali, in addition to English and French webinars describing the process.

Despite all implemented supports and educational resources, accurate completion of the laboratory requisition continued to be a significant barrier regardless of English language capacity. This contributed to significant time delays in reporting results and in some cases, precluded samples from being processed by the lab if the documentation and sample labeling were found to be inconsistent. This remained an area of continued focus and improvement as the program re-launched in the subsequent school year.

The broad geographic location of schools supported by the SickKids program posed a challenge in terms of timely return of samples to the lab. To mitigate this, a courier service was hired, and a route was mapped to do a daily pickup from each school. An audit was performed for the months of April and May, and we noted that not every school had samples for daily pick-up when the courier arrived. To improve efficiency and reduce costs associated with transporting samples, the process was modified whereby schools would send an email by 10:00 hr if they had samples requiring same day pickup.
Recognizing the value of reflection and feedback, SickKids distributed a program evaluation survey to all participating school principals and school board representatives on June 30, 2021. The survey sought to measure several indicators such as perceived implementation workload; satisfaction with kit delivery, distribution, and courier service; utility of templates, educational materials and webinars and overall turnaround time.

Completion of the survey was voluntary and a total of 18 surveys were returned. Overall satisfaction with the program was positive as highlighted in the chart and testimonials (see Figure 6 & 7). In general, respondents felt the program successfully helped to increase testing compliance, enhance health and safety and decrease testing fear and fatigue within their school.

All but one participant rated the overall experience of the program as greater than 7/10. The outlier response, who did not indicate a positive experience with the program stated, ‘The program was not really utilized at this school consistently.’ As this response is not representative of the question asked, the answer and its validity should be interpreted in context.

Figure 6: Test-kit Program Experience (N=18)

On a scale from 1 - 10 (1 = not fantastic; 10 = fantastic), please rate your school’s overall experience with the program.
<table>
<thead>
<tr>
<th>Testimonial</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents are grateful for this program, especially for our students with special needs. The saliva tests were easier to administer and able to administer from home and return to school. Very convenient.</td>
<td>Antonietta Grossi, Principal, St John the Evangelist Catholic School, TCDSB</td>
</tr>
<tr>
<td>The program was easy to use and very beneficial to our staff, students, and their families. I really only have positives to say, and I would love to continue to work with them.</td>
<td>Jody Stapleton, RN, Crescent School</td>
</tr>
<tr>
<td>So pleased that SickKids Hospital initiated this. It will be even more valuable once school resumes in person.</td>
<td>Paddy Morgan, Principal, St. Martin de Porres Catholic School, TCDSB</td>
</tr>
<tr>
<td>When I first read the email about this program, I remember thinking... I would really love to have this program in my school but is it going to end up being information overload to the point of not understanding how to run this program. Fast forward weeks later and I strongly recommend the Saliva Test-kit for all schools. Information was clear and concise. Instructions were easy to follow and communication from SickKids staff was always easy to follow. <strong>SickKids Saliva Test Program Rocks!!!!!!</strong></td>
<td>Florence Conolly, Principal, Prince of Peace Catholic School, TCDSB</td>
</tr>
<tr>
<td>The program was extremely well organized. I would not have changed anything. It provided a piece of mind to my staff. You are <strong>AWESOME</strong>!</td>
<td>Anonymous</td>
</tr>
<tr>
<td>During the Pandemic we have been trying to manage the unmanageable. The SickKids Back to School COVID-19 Saliva Program has made the unmanageable manageable.</td>
<td>Corrado Maltese, Coordinator, Occupational Health and Safety Department, TCDSB</td>
</tr>
<tr>
<td>And a big <strong>THANK YOU</strong> for all your hard work and effort to support our community over the last three months. The testing has really been supportive and reduced a lot of anxiety of students and staff-coming in at the height of wave three where students and staff were only partially immunized.</td>
<td>Ian Bain, Principal, Sir William Osler High School, TDSB</td>
</tr>
</tbody>
</table>
Most schools implemented the program for staff and students (61%; N=11) while some extended it to staff, students, and family members (28%; N=11). One school maintained the program for asymptomatic staff testing only.

All principals who completed the survey reported that program materials, educational resources and correspondence with the SickKids team were clear, and sufficiently comprehensive to enable successful launch and implementation of the program. Most attributed relative low work effort associated with program implementation owing to the clarity of instructions and overall organization of the program. Despite the workload associated with program implementation, 100% of respondents stated that workload did not influence their willingness to participate in future program offerings.

Expansion of the School-based Saliva PCR Test-kit Program

COVID-19 testing continued to be an essential part of the overall strategy to support the safe return of staff and students to in-person learning in the following school year (September 2021). Strategies to improve uptake of testing in schools remained critical and SickKids endeavoured to further enhance access to COVID-19 PCR testing for symptomatic students, staff and household members, and support coordinated testing of exposed cohorts and outbreak scenarios in collaboration with PHUs and schools.

SickKids was well positioned to facilitate testing by providing a less invasive and easily accessible method of sample collection for staff and students who presented with symptoms consistent with COVID-19 and/or were part of an exposed cohort recommended for testing by TPH. In addition to facilitating symptomatic as well as case and cohort testing, the SickKids program had the laboratory capacity to conduct viral sequencing for all identified cases. This helped with interpretation of results, enabled identification of variants of concern (VOC) (i.e., Delta and Omicron variants) and better understanding of transmission, thereby avoiding unnecessary school closures when multiple cases are identified.

A key goal was to expand the test-kit program beyond the original SickKids school allocation to include schools across the Toronto Region (see Table 4). It was assumed that MGH would cover the remaining schools based on the test-kit program that had already been established in the Flemingdon and Thorncliffe Park community and surrounding area.

<table>
<thead>
<tr>
<th>School Board</th>
<th>SickKids</th>
<th>MGH</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDSB</td>
<td>407</td>
<td>90</td>
<td>582</td>
</tr>
<tr>
<td>TCDSB</td>
<td>162</td>
<td>16</td>
<td>211</td>
</tr>
<tr>
<td>French</td>
<td>32</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Other/Private</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>677</strong></td>
<td><strong>120</strong></td>
<td><strong>821</strong></td>
</tr>
</tbody>
</table>

Table 4: Test-kit Program Deployment in Toronto
The SickKids Saliva PCR Test-kit Program offered a less invasive (i.e., saliva sampling), accessible (i.e., self-collection) and adaptable (i.e., take-home/drop-off) testing option for the community. The program included the following components:

1. **Pre-packaged saliva PCR test-kits distributed and available within schools for:**
   - Symptomatic testing for staff, students, and household members
   - Cohort/exposure testing as recommended by TPH
   - Outbreak and/or school wide testing as recommended by TPH

2. **Comprehensive communication and education to launch and support program:**
   - Consultation with principals and school administrators to understand unique needs of school, staff and students
   - Live and pre-recorded educational resources and webinars for staff, students & school community regarding program purpose & logistics

3. **Sample collection, transport, and results reporting**
   - Saliva test-kits distributed with instructions for sample collection and accessing results
   - Provision of supplies and assistance with planning to support school-specific designated pick-up/drop-off areas within schools to support a touchless transaction
   - Daily courier service to pick up and transport samples
   - Results available within 24-48 hours from receipt of sample in the lab
   - Variant testing/Whole Genome Sequencing (WGS) results within 48 hours with outbreak analysis as needed

Over the course of 8 weeks (August 30 to October 29, 2021) SickKids worked with school boards, principals, and school administrators to arrange program onboarding webinars and deploy test-kits to the 677 schools across the city. During weeks 1 and 2 (August 30th – September 10th), time was spent re-launching the 57 schools that participated in the test-kit program during the previous school year as well as onboarding an additional 54 new schools. The SickKids team attended all principal meetings that were scheduled by their respective boards to enable sharing of information about the program purpose, and logistics.

Subsequent weeks involved onboarding of 100 schools per week (approximately 20 schools per
day) with provision of educational resources and webinars for staff, students, and school community to familiarize them with the program and appropriate testing scenarios. By the end of October, the program was fully launched in all schools whereby SickKids was the identified testing partner.

Throughout program launch and onboarding of schools, SickKids remained available to provide testing as recommended by PHUs using the saliva PCR test-kits. If a particular school had not yet received their kit allotment during this time, SickKids coordinated with the principal to ensure testing was accessible during the recommended time frame for the exposed case and/or cohort testing.

Although it was difficult to predict the absolute number of samples that would be collected each day, a formula was developed to help with some forecasting. Based on a review of the sample return rate and student enrollment for the Special Needs schools and MEDD classrooms during the April to June timeframe, a factor of 0.09 samples per person, per week was determined. Applying this to the overall enrollment of students in each of the public-school boards, it was estimated that approximately 6,300 samples per day could potentially be received, which was expected to be within the SickKids lab capacity.

The number of schools to visit each day was difficult to predict so for purposes of planning, a courier service was secured that had sufficient capacity to pick up samples daily, Monday to Friday from all SickKids assigned schools with the exceptions of statutory holidays and school board designated Professional Activity (PA) days. From the start of the school year until November 2021, SickKids received up to 1,500 samples each week from the school program. In December of 2021, this number soared to 1,500 samples per day which, in addition to samples collected from all other sources, exhausted lab capacity and significantly delayed turnaround times and result reporting.

School-based COVID-19 PCR testing ended in January 2022 under the direction of the provincial government and MOH. At that time, eligibility criteria changed, and staff, students and school community members were expected to transition to Rapid Antigen Tests (RATs). Schools that had any remaining supply of test-kits could continue to use them during the transition however, SickKids was not permitted to provide any re-stocking.

As the test-kit program ended, SickKids distributed a program evaluation survey to all participating school principals and/or school leads. The survey sought to measure several indicators such as program workload for both program preparation and launch, program communications, program logistics and general program feedback.

Completion of the survey was voluntary and a total of 351 surveys were returned. Once again, respondents shared very positive experiences about the program. Many felt that it successfully improved school community safety and improved access to PCR testing (see Figure 8). Overall program satisfaction was high as highlighted in the testimonials below (see Figure 9). More than 60% of survey respondents noted that most of their time was dedicated to answering parents’ questions and concerns and sharing resources with their school community (see Figure 10).
Figure 8: Perceptions of Improved Community Safety with SickKids Test-kit Program

Did the SickKids Test-kit Program support school community safety?

- 98% YES
- 2% NO

Did this Program improve access to PCR testing for the school community?

- 97% YES
- 3% NO

Figure 9: SickKids Saliva PCR Test-kit Program Testimonials from School Staff

- ‘It was really beneficial when it was expanded to staff and students’ families.’
  - Member of school staff

- ‘Testing rates for our population were very low to begin with so this program made all the difference. As a school with immunocompromised students and students with complex medical needs, testing is essential.’
  - Member of school staff

- ‘As rapid antigen tests were not always available or the preferred testing method for some families… PCR saliva test enhanced our school community’s awareness and use of symptomatic testing options which I believe kept our overall absence rates down in the late winter period.’
  - Member of school staff

- ‘Especially useful for young or vulnerable students to conduct testing where with nasal swabbing it may not have been possible to test at all.’
  - Member of school staff

- ‘Made a huge difference for my community. Prior to this option, many would not test kids and they stayed home for the full 14 days’
  - Member of school staff

- ‘This was a great program that got PCR testing to communities and individuals that would otherwise have not had it. Using the schools as the point of pick up and drop off made it natural for families. Literally a LIFE SAVER!’
  - Member of school staff
In May 2022 principals/school administrators were sent a pre-drafted email with survey link to be shared with the school community. The survey sought to measure school community perception of the program as well as several indicators including use of the COVID-19 saliva PCR test-kits, shared communications, accessing results and testimonials.

Completion of the survey was voluntary, and a total of 1,556 were returned. Most respondents agreed that the SickKids program support school safety and that they would use saliva PCR test-kits again in the future (see Figure 11). Survey findings were congruent with the overarching goals and pillars of the SickKids Saliva PCR Test-kit Program. Respondents highlighted the greatest benefits which included ease of use and accessibility; a less invasive and acceptable testing option (i.e., saliva); and better uptake of symptomatic testing due to the convenience of the take home/drop off method (see Figure 12). Overall program feedback was very positive, and the school community testimonials really highlighted the impact the SickKids Saliva PCR Test-kit Program had during the 2021 school year (see Figure 13).

**Figure 10: Principal and School Administrators’ perceptions on time spent for program activities**

Which activities related to the testing program took up most of your time?

- Answering parents’ questions/concerns, **63%**
- Sharing resources with the school community, **61%**
- Communicating with SickKids staff, **34%**
- Educating staff about the program, **26%**
- Organizing program drop off logistics, **20%**
- Communicating about courier, **17%**

In May 2022 principals/school administrators were sent a pre-drafted email with survey link to be shared with the school community. The survey sought to measure school community perception of the program as well as several indicators including use of the COVID-19 saliva PCR test-kits, shared communications, accessing results and testimonials.

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**Figure 11: School community feelings about the SickKids PCR Test-kit Program**

Did you find the SickKids Saliva PCR Test-kit Program supported safety within the school community? (N = 1,487)

- YES: **93%**
- NO: **7%**

If testing was required again in the future, would you use the SickKids PCR Test-kits? (N = 1,508)

- YES: **92%**
- NO: **8%**
Figure 12: School staff and community perception of SickKids PCR Test-kit Program benefits

![Bar chart showing the percentage of School Staff (N = 351) and School Community (N = 1,551) perception of benefits.]

- Easy to use: 73% for Staff, 87% for Community
- Better access to PCR testing: 50% for Staff, 72% for Community
- Non-invasive option: 48% for Staff, 69% for Community
- Promoted testing for symptomatic individuals: 40% for Staff, 61% for Community
- Timely results: 39% for Staff, 61% for Community
- Other: 4% for Staff, 8% for Community

Figure 13: SickKids Saliva PCR Test-kit Program Testimonials from School Community

- ‘Especially useful for very young or vulnerable students to conduct testing where with nasal swabbing, it may not have been possible to test at all’.
  - Member of School Community
- ‘Made a huge difference for my community. Prior to this option, many would not test kids and they stayed home for the full 14 days’.
  - Member of School Community
- ‘It was really beneficial when it was expanded to staff and student families’.
  - Member of School Community
- ‘As a single parent who also cares for two sick family members, having access to easy to administer and non-invasive testing was a game changer and provided another level of safety and reassurance. I was able to easily test my five-year-old after a high-risk exposure at school. This is an invaluable service and I send my heartfelt thanks and appreciation to everyone who works on this initiative’.
  - Member of School Community
After all survey responses were collected and reviewed it was important to identify any barriers to the program that were perceived and/or experienced by principals, school administrators and/or the school community. From this analysis, the team identified challenges that included timely access to translated resources for schools and the school community; the importance of personal connection between SickKids and school staff and its impact on program success; the crucial need for principals and school administrators to engage their school community, and the need for daily courier pick up from individual schools across the city to improve accessibility for staff, students and household members participating in the program.

Expansion of the Community-based Saliva PCR Test-kit Program

The Saliva PCR Test offered a more accessible and less-invasive COVID-19 testing alternative to other methods used across the Toronto region at the time (i.e., NP/anterior nares swab; nasal/buccal swab). A key benefit of the saliva PCR testing modality was the fact it could be self-administered and did not require a healthcare worker, special staff training or donning of personal protective equipment (PPE) to collect the sample.

The sample collection receptacle that was used allowed for safe handling and transport of samples from various community sites due to a liquid substance that was released from the cap, when the receptacle was closed. This liquid de-activated any live virus that may be present in the sample giving the community a greater sense of safety. With these, and other benefits of saliva testing in mind, the SickKids Community Outreach efforts were expanded to more shelter and congregate care settings, Early Learning and Child Care Centre’s (ELCCS), university residences as well as overnight and day camps, making COVID-19 testing readily available to students, staff, clients, and family members across the community.

Shelters and Congregate Care Homes

Initial connections with the shelter and congregate care sector were forged when SickKids acted as a testing partner for sites recommended for testing by TPH. Subsequently a referral system was developed with OH and TPH, and SickKids was able to support approximately 60 outbreak investigations at shelters/congregate care homes across the city of Toronto. Through this meaningful work, it became clear that a more consistent testing program with readily accessible test-kits onsite would be beneficial for the sector and help enhance testing ease and uptake. This would be an important step in helping maintain the health and safety of residents, clients, and staff at our partnering sites.

To accomplish this, SickKids started to onboard shelters and congregate care homes that had a child and youth focus. A list of such sites was obtained from OH and was the basis for the initial onboarding process. All site leads were contacted via email and telephone. If sites were interested in learning more about the program, they would attend a one-on-one onboarding webinar presentation. The program was modeled after the SickKids Saliva PCR Test-kit Program within schools offering the saliva PCR test kits on site as well as a pickup and drop off courier service, free of charge. This created an accessible form of testing for the sites that became a preferred option for children, youth, staff and community members which
was helpful in combatting testing fatigue/aversion that was often associated with the more traditional NP swabbing.

Testing criteria was based on provincial guidance for congregate settings which allowed for all staff, residents/clients, and their family members, to qualify for COVID-19 testing. SickKids would communicate the results of the residents or clients to the designated site lead to enact the appropriate isolation protocols required due to the shared living conditions. All staff and family testing was kept confidential and only disclosed to the individual themselves.

The next focus for expanding the program included designated Violence Against Women (VAW) shelter sites. These locations had enhanced safety protocols in place to help ensure complete confidentiality of site locations. To accommodate this, SickKids utilized code names in lieu of real names for those sites that requested the testing program. In addition, all information for these sites was kept in a locked excel file on the encrypted SickKids SharePoint. A total of 9 sites were onboarded during this intake period.

When the eligibility criteria for COVID-19 testing changed and the school-based Saliva PCR Test-kit Program ended, SickKids shifted focus and further expanded the shelter/congregate care home programming to accommodate their eligible populations. SickKids provided a month of onboarding webinars in February 2022 resulting in an additional 58 shelter and congregate care homes bringing the total Test-kit Program enrollment to 67 shelter and congregate care home sites (see Table 5).

| SickKids COVID-19 Saliva PCR Test-kit Program for Shelter and Congregate Care Homes |
|-----------------------------|-----------------|
| Children and Youth focused sites | 58 |
| Violence Against Women sites | 9 |
| Total Sites: | 67 |

Table 5: SickKids Saliva PCR Test-kit Program for Shelter/Congregate Living Site

To evaluate the program and explore opportunities for future connections, SickKids distributed a voluntary survey to all site leads and partners involved in the program in June 2022. The survey sought to measure several indicators including program use at the site, perceived program workload, perceptions about support on COVID-19 case and outbreak management, as well as testimonials (see Figures 14 & 15). A total of 37 surveys were returned providing feedback on the program as well as areas of greatest need and/or future opportunities for partnership. Key themes emerged and are summarized in the list below with a predominant desire expressed for continued partnership with SickKids in helping to build capacity related to health and wellbeing of children and youth, including educational sessions and resource sharing.
Common Themes for Shelter and CCH Health and Wellness Needs/Future Connections included:

- Continue with COVID-19 education, testing and support
- Presentation for trans and nonbinary youth
- Mental health support
- Information or clinic on vaccinations for newcomers to Canada e.g. getting HPV vaccine
- Health information sessions on parenting, health education for new parents, mother and baby support and breastfeeding support
- Supporting access to health services for children/new immigrants or families with limited access to services covered by OHIP

Figure 14: Select Results from the June 2022 Shelter/CCH Survey

Overall, the SickKids Saliva PCR Test-kit Program promoted health and safety at my site

Overall, the SickKids Saliva PCR Test-kit Program helped prevent the spread of COVID-19 at my site
Overall, the SickKids Saliva PCR Test-kit Program helped with COVID-19 outbreak management at my site

Overall, my experience with the SickKids Saliva PCR Test-kit Program was positive

Does your site currently have any areas of need from a health and wellness perspective relating to children and youth?

- Require access to medical services (e.g. family MD appointments)
- Health education and promotion (e.g. virtual presentations on relevant topics picked by...)
- Mother and baby support (e.g. wellness checks; breastfeeding)
- All of the above
- Other
Partnering with SickKids on future collaborations would be of benefit to my organization

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

How could SickKids continue to support health and wellness at your site in future

- Continue to provide COVID-19 testing and information
- Host educational webinars for health concerns related to your site
- Maintain connections by keeping communication open in the future
- Other
The SickKids Saliva PCR Test-kit Program with shelters and congregate care homes ended in September 2022. The decision to end the program was based on several considerations including the transition to rapid antigen testing as the primary modality of testing for the sector.
The SickKids CTC provided testing for case and outbreak management to childcare sites based on referrals from Home and Community Care Support Services-Toronto Central (HCCSS-TC). Testing would be recommended for specific cohorts or for entire childcare sites, depending on the scope of the investigation. When a referral was received, SickKids worked collaboratively with the assigned investigator from the TPH Child and Youth Response Team to coordinate testing and provide relevant education for the site. SickKids offered multiple testing modalities including the NP swab, saliva PCR test and anterior nares swabs to suit the age and preference of the individual being tested. Positive test results were disclosed to the individual or their parent/guardian as per the obligations under the Personal Health Information Protection Act (PHIPA). Disclosure of results to the childcare centre was left to the discretion of the parent/guardian and/or staff member.

To further enhance the service, SickKids launched a pilot program making Saliva PCR test-kits available onsite for symptomatic children and staff who attended the childcare centre. This enabled easier access to testing independent of a TPH investigation. Although there was ample interest in the program from site leads and ELCCS management, SickKids had to limit onboarding to a total of 14 ELCCS sites given the sheer number of schools (i.e., > 600 schools) already being supported by the test-kit program.

Onboarding for childcare sites followed the same introduction and orientation as schools which included an educational webinar providing information about the program and testing modality. Site operators were encouraged to reach out with any questions about COVID-19 testing, supplies and/or ongoing education for staff and parents.

The ELCCS sites that were onboarded became integral to the ‘Holiday Hub’ drop-off locations that SickKids organized during the school winter break. All individuals involved in the SickKids COVID-19 Saliva PCR Test-kit Program could drop off their kits at designated hubs when schools or daycares were closed for the holidays. There were 12 holiday hubs offered to individuals over the break (December 20, 2022 to January 3, 2022) and 5 of the sites were ELCCS. This collaboration allowed access to drop off locations for families in the community and was integral to its success during school closure. This highlights the benefits of collaborating with multiple community stakeholders and how working together to produce modified solutions to communal problems leads to success.
Similar to school-based testing, the SickKids Saliva PCR Test-kit Program in ELCCS ended in January 2022 when guidance changed, and children and childcare staff were no longer eligible for PCR testing. The ELCCS community expressed disappointment that testing was ending and wanted to maintain a connection with SickKids. The SickKids team reassured the site leads that the line of communication between SickKids and the centres would always remain open which would serve as a foundation for future collaboration. Subsequently, when efforts shifted to vaccination, the SickKids COVID-19 Vaccination Centre was able to reach out to the ELCCS community to share information on the new SickKids Virtual Urgent Care Clinic and the Vaccine Consult Service; and promote educational webinars and specialty clinics for children with medical complexities, behavioural issues, or severe needle phobia.

**University Residence**

In 2021, SickKids was approached by a downtown university who was interested in having onsite saliva PCR COVID-19 testing for students living in residence. Due to the congregate living nature of university residence, individuals continued to qualify for PCR testing under the Government of Ontario testing guidance. The individuals being tested were responsible for looking up their own results on the Government of Ontario website but would be contacted directly if they were positive for COVID-19. The university’s occupational health site lead which consisted of a designated occupational health nurse, would be notified of the positive COVID-19 cases to ensure proper isolation and protocols were in place.

**Day and Overnight Camps**

The camp experience is a hallmark in many children’s summer lives, providing opportunities for social interaction, physical activity and new experiences that positively impact a child’s mental and physical health. During the Pandemic, children had experienced multiple lockdowns, school closures and limited ability to interact with peers in social or extracurricular activities. When the decision had been made by the Government of Ontario that children could return to camp for the 2021 summer months, SickKids sprung to action to help facilitate pre-camp testing for all staff and campers that onboarded to the SickKids Saliva PCR Test-kit program. SickKids recognized the importance of ensuring a successful return to both day and overnight camps in Toronto and throughout Ontario.

SickKids onboarded interested camps through virtual educational webinars and worked to tailor a testing schedule that suited each camp’s unique sessional dates. Camp staff and campers would complete rounds of testing aligned with each sessional start date throughout the months of June, July, and August of 2021. Camps would provide SickKids with a line list of names and dates of birth of the individuals tested. With the completed line list, SickKids was able to follow up on the results in the database, providing all results to the individuals or guardian, as well as to the designated camp lead.
Due to the congregate living nature of camps, communicating positive results in a timely manner was essential to ensure a safe camp environment and to isolate any positive individuals or ensure those with a confirmed case of COVID-19 did not attend camp until medically cleared. SickKids staff provided ongoing support and collaboration with camp leads throughout the summer and were quick to jump in and assist with addressing any questions or concerns that arose related to their camp testing plan.

A total of 21 overnight and 4 day camps were onboarded to the SickKids Saliva PCR Test-kit Program. Throughout the summer, none of the onboarded camps experienced any total site closures and all sites were able to operate on schedule. This marked a successful testing program and allowed children to return to camp safely.

Figure 16: Testimonials from Day and Overnight Camps

‘We want to thank you for being part of our team. We know that allowing Ontario Summer Camps to access the services of SickKids hospital and your lab was a huge organizational effort on your part. You have made the process for us so seamless, firstly just supplying the test-kits but also giving us the tools to bring it all together.’
- Camp staff

‘Please know that our summer was filled with happy, sun baked campers and staff. Youth of all ages were able to just breathe and bring some normalcy back into their lives as they turned off technology and challenged themselves while enjoying our natural environment. We thank you for the part that you played in allowing that to happen’
- Camp staff and Camper’s letter

‘We want to extend a huge thank you and appreciation to you and the rest of the SickKids team for helping us through this unusual summer. The testing plan you were able to assist us with made our process and summer run so much smoother, thank you!!’
- Program Director, Project Canoe

‘Huge thanks to you and the whole testing team there, OCA camps and especially Pathfinder owe you a huge debt of gratitude.’
- Program Director, Camp Pathfinder

‘We want to thank you for all of your support this summer as we worked tirelessly to bring summer camp and a somewhat normal summer to many children and staff members. To see young people laughing and playing and being together without masks while they remained in their cohorts, was such a refreshing site. It is so wonderful to have all of them back at our camp. Having this extra layer of mitigation against COVID-19 allowed us to run with the assurance that our staff had not come into contact with COVID-19 and our leadership campers were able to go on canoe trips and be comfortable with the fact that any sniffle, was just that, a sniffle. We know that this has been an organizational challenge for your team and the fact that you were able to do it, while supporting so many summer camps, is so appreciated! You have made a huge difference in the lives of many! Thank you for being part of the Camp Kawartha COVID-19 Free Taskforce’.
- Camp Kawartha Health Care Coordinator
Child and Youth COVID-19 Vaccination Strategy

Vaccinating against COVID-19 became the most effective way to reduce disease burden from infection with the COVID-19 virus⁵. With regards to the effect on children and youth specifically, vaccination helps reduce community transmission of COVID-19 and allows these individuals to participate in in-person education and social activities more safely.

Vaccination On-Site at SickKids

With the advent of government approval, the Province of Ontario extended vaccination eligibility to youth aged 12 to 17 in May 2021. At that time, Pfizer-BioNTech was the vaccine of choice for this age group based on Health Canada authorization and the National Advisory Committee on Immunization (NACI) recommendations. Subsequently, the City of Toronto initiated vaccination appointments for City-run immunization clinics for youth aged 12 to 17. SickKids along with TPH and other vaccination partners, focused efforts to ensure all youth had the opportunity to receive their first dose of vaccine before the beginning of summer and their second dose before the start of the school year in September 2021.

The COVID-19 vaccine program expanded in November of 2021, with the NACI recommendation and approval of Pfizer-BioNTech vaccine for youth aged 5 to 11, and again in July 2022 with the approval of Moderna vaccine for children aged 6 months to under 5 years.

Building on existing partnerships and seeking to develop new partnerships where there were gaps in expertise and infrastructure, SickKids developed educational resources; provided ongoing educational webinars; and augmented partner staffing capacity at local school-based immunization clinics. These outreach efforts were all focused on supporting the youth vaccination strategy that would provide vaccination options as close to home as possible as well as trusted information and education about vaccinations that was accessible for children, youth, and their caregivers.

There continued to be demand for the SickKids COVID-19 vaccine program given the expertise supporting children with medical complexity, neurodevelopmental delays, behavioral concerns and severe anxiety or needle-phobia. Experienced and specially trained paediatric nurses, Child Life Specialists, and access to distraction tools and resources to reduce anxiety (i.e., therapy dogs, virtual reality) provided the underpinning of an effective model of vaccine care and support.
**SickKids Off-site vaccine support**

The SickKids Outreach team worked in collaboration with other vaccine partners and shared paediatric expertise to support the Toronto Kids Vaccine Day at the Scotiabank arena, as well as various off-site vaccine clinics at the MARS building and Michener Institute. Additional clinics were held across SickKids for children and youth with medical complexities, severe needle phobia and those with PEG-asparaginase allergy. PEG-asparaginase is a drug used to treat young people with acute lymphoblastic leukaemia (ALL). Some people treated for ALL with have had an allergic reaction to PEG asparaginase and thus, young people with allergies to PEG asparaginase received the Pfizer-BioNTech in a specialized clinic at SickKids.

Furthermore, SickKids supported mobile school vaccine ‘pop-up’ clinics in Rexdale, the Kipling school district, The Neighbourhood Office (TNO) and Emerging Youth Consultancy (EYC) in collaboration with colleagues from MGH. As youth partners, EYC organized over 5 youth consultations where youth provided feedback as to what resources they wanted to see at the vaccine clinics. One of primary requests was to include access to employment services and youth-centered mental health resources at the youth vaccine sites. SickKids responded by providing educational resources specific to vaccine hesitancy as well as mental health resources.

**COVID-19 Vaccine Consult Service (VCS)**

Strengthening confidence in COVID-19 vaccines within communities promotes more individuals getting vaccinated leading to fewer COVID-19 illnesses, hospitalizations, and deaths\(^6\). Vaccine confidence is defined as the trust that patients, their families, and providers have in discussing and recommending vaccines, providers that administer vaccines, processes and policies that lead to vaccine development, licensure or authorization, manufacturing and recommendations for use\(^6\).

A multitude of factors influence vaccine uptake, including cultural, social, political factors, individual and group factors, and vaccine-specific factors. Confidence in vaccines, the vaccinator, and the overall health care system all serve to support the decision to get vaccinated\(^6\). With regards to paediatric vaccination with the COVID-19 vaccine specifically, parental intention to vaccinate involves many additional considerations including perceived low mortality rate from COVID-19 in children, rapid development and novelty of COVID-19 vaccines and concerns of long-term effects, information sharing and social media, and politicization of the Pandemic\(^7\).

Professionals who regularly interact with children are uniquely positioned to promote dialogue on the risks and benefits of the COVID-19 vaccines for both patients and parents/caregivers. Parents/caregivers who are reluctant to obtain the vaccine for themselves may lack access
to their own health care providers to discuss their concerns and are likely to communicate their hesitancy with their children. Paediatric health care professionals can serve to reconcile these gaps by listening to concerns and providing evidence-based education. With ever-evolving data pertaining to the COVID-19 virus and COVID-19 vaccination, it can be challenging for health care providers to remain up to date with the information they are disseminating, particularly those that are specialized in a field other than infectious diseases.

COVID-19 Vaccine Consult Service

Available to children, youth and their families across Ontario

The SickKids COVID-19 Vaccine Consult Service is a by-appointment phone service that provides a safe, judgement-free space to have an open conversation about the COVID-19 vaccine for children and youth.

Over the phone interpretation is available for free in many languages.

If you have questions about the COVID-19 vaccine for children and youth, the answers are one phone call away.

Visit sickkids.ca/vaccineconsult to make a booking
If you need assistance booking an appointment, please call 437-881-3505 or call us toll free at 1-888-304-6558

Over the phone interpretation is available for free in many languages.

الترجمة الوردية عبر الهاتف متاحة مجانًا بعدة لغات.

L’interprétation par téléphone est disponible gratuitement dans beaucoup de langues.

免费提供多种语言电话口译。

服務提供多種語言電話翻譯。

Los servicios de interpretación telefónica están disponibles en varios idiomas sin cargo.

If you have questions about the COVID-19 vaccine for children and youth, the answers are one phone call away.
The SickKids COVID-19 VCS is a nurse-led, telephone consultation service for residents of Ontario who have questions and/or concerns about COVID-19 vaccination for children and youth that aims to address vaccine hesitancy and enhance vaccine uptake. The VCS ensures that youth and caregivers have equitable access to timely and reliable information about COVID-19 vaccines and provides the opportunity to ask questions and express concerns regarding the vaccine in a safe and judgement-free environment. The VCS has escalation pathways in place should further discussion with a physician be required due to the child or youth’s medical history. Discussions among specialists caring for these children (both at SickKids and in the community) can further enrich the advice provided to these families and ensure they are getting answers to individualized medical concerns to enhance their confidence to move forward with vaccination. Conveniently, parents/caregivers can book appointments without the need of a provider referral and all discussions are held on the phone to ensure easy and equitable access to information.

The team also assists families whose children require accommodation for vaccination with vaccine appointment bookings onsite at SickKids and throughout the province, through partnerships with other children’s hospitals. It is the largest paediatric vaccine hesitancy service for COVID-19 at a tertiary paediatric academic institution in Canada and has been proven to be very successful in providing education on primary concerns posed by parents/caregivers with a high approval rating on exiting surveys. Most recently, the service has been extended to provide information for children, youth as well as partnering and collaborating with Scarborough Health Network’s (SHN) VaxFacts to support those who are pregnant, breastfeeding or planning to conceive.

Since the VCS launched on October 4, 2021, over 2,300 appointments have been booked, with a no-show rate of four per cent. In the two weeks following the approval of the vaccine for 5-to-11-year-old age group, appointment bookings increased by 156 per cent. The VCS manages a range of calls from families throughout the province, with the top five reasons for calling being concerns about myo/pericarditis, the development and safety of the vaccine, safety in relation to their child or youth’s medical condition, short-term side effects, and general questions about the vaccine. Thirty per cent of appointments required escalation to a physician due to persistent hesitancy or related to past or current medical history. In a follow-up survey, 94 per cent of respondents say their questions or concerns were addressed in their appointment.

The nurse-led model has proven successful for resolving concerns for the majority of those utilizing the VCS. With continued efforts focused on vaccine uptake for 5-to-11-year-olds and the recent approval of the vaccine for children under age five, support for families will continue to be needed.

A preliminary assessment of the evaluation of data from October 2021 to April 2022, has been completed. Of all the callers 95% were parents, inquiring about their children. A third of these calls that concerned medical conditions fell under Cardiology or Neurology diagnoses. 10% of the call also involved discussion of an allergy the child had and how they related to the vaccine.
During the VCS consultations, each RN keeps note of the most common questions and themes that emerge. The most common questions and themes include:

1. When would be the best time to vaccinate my child post COVID-19 infection?
2. Intervals between primary series doses and booster doses.
3. Safety of the vaccine in relation to specific medical conditions.

Each consult is a unique conversation, focusing on direct questions about the COVID-19 vaccine, but is bespoke in nature towards individual scenarios. If additional support was needed after the consultation, the RN would consult with the NP or MD regarding the question and follow-up with the individual or escalate the call, booking them in for a consultation with the VCS NP. 83% of the consultations completed by the VCS RN results in resolved questions and concerns by the individual, with 9% of the calls having the NP or MD consulted by the RN, followed by 6% of the calls resulting in a separate escalation consultation with the NP.

**SickKids COVID-19 Vaccination under Sedation Pathway**

Within the many VCS consultations, the VCS RN would come across individuals who had severe needle phobia, medical complexities, and/or behavioural complexities. The CTC RN’s were experiencing similar patient situations on site. These individuals and their parent/guardian were motivated to proceed with COVID-19 vaccination, and despite numerous attempts to vaccinate at child-friendly mass vaccination clinics, pharmacies, and family practice clinics, these individuals were left unsuccessful with vaccination. At the time of changing mandates, children and youth who were unvaccinated against COVID-19 were systemically marginalised, disadvantaged and may also be suffering negative psychosocial impacts.

In collaboration with the CVC, and Sedation Team with Dr. Toby Everett, a pathway was then created for individuals who were unsuccessful at getting vaccinated in the community despite multiple attempts, strategies and accessing different locations. The pathway would begin with an assessment via consultation by the VCS RN. Once discussion of history and education on strategies discussed, a referral to the CVC for the COVID-19 vaccination would be put in place. Alternatively, if the individual did have individual complexities, the VCS RN would refer to the VCS NP for an additional assessment for next steps.

If the attempt to vaccinate at the CVC was unsuccessful, the VCS NP would then be consulted to complete an assessment and present a case to the Anaesthesiologist Team (Dr. Toby Everett) to determine if the individual would be deemed appropriate for vaccination under sedation.

If the individual is accepted for vaccine under sedation and is successful at vaccination and a second dose is required, the VCS NP would follow-up with the parent/caregiver and discuss potential attempt at vaccinating at SickKids or the community without sedation intervention to build confidence and capacity. If parent/guardian declines, the sedation pathway is then restarted.
The Vaccination Under Sedation Pathway is currently undergoing QI submission. The VCS has been largely successful in providing evidence-based education on COVID-19 vaccination in the paediatric population in an open and inviting environment with over 90% (see figure 17 & 18) of those surveyed following the appointment expressing satisfaction with the service and 79% stating that the callers intend to proceed with vaccination (see figure 19).

**Figure 17: Caller Satisfaction with the VCS service**

- **How satisfied are you with how the SickKids COVID-19 Vaccine Consult Service team addressed your questions or concerns?**
  - Very Satisfied: 92%
  - Satisfied: 91%
  - Neutral: 0%
  - Dissatisfied: 5%
  - Very Dissatisfied: 2%

- **Overall, how would you rate your experience with the SickKids COVID-19 Vaccine Consult Service?**
  - Very Satisfied: 91%
  - Satisfied: 79%
  - Neutral: 0%
  - Dissatisfied: 2%
  - Very Dissatisfied: 0%

**Figure 18: Caller Intention to vaccinate child post-consultation**

- Yes: 79%
- Undecided: 15%
- Prefer Not to Answer: 4%
- No: 2%
Improving COVID-19 vaccine confidence and uptake will help to decrease the burden of disease in the paediatric population and community at large. Going forward, this consult service could serve as a template for education and dialogue around other routine childhood promoting a shared health model among parents/caregivers and paediatric health care providers.

COVID-19 Testing, Vaccination and Community Outreach Centre Staffing Model

The SickKids team has been instrumental in developing resources and promoting child friendly/family centered approaches to meet evolving guidance and shifting needs of the community. With a steadfast commitment to enhancing access to services and information, paediatric expertise was leveraged accordingly. Educational supports focused on building capacity within teams were developed and delivered. Advice and recommendations were tailored to the individual environments and populations involved with various COVID-19 outreach interventions.

Many of the tasks that helped launch the initial mobile swab PCR testing program served as a foundation in establishing the SickKids CTC. The original staffing model saw expansive growth through each wave of the COVID-19 Pandemic. The skills and capacity of the team continuously evolved to meet the mounting needs and demands of the community. While there were many fluctuations with the number of team members involved, the team was consistent in staffing roles that included: Clinical Manager; Nurse Practitioner; Nursing Team Lead; Registered Nurses; Clinical Program Coordinator; Patient Information Clerks and a Child Life Specialist.
Keeping pace with the constant changes associated with COVID-19 guidelines for both testing and vaccinations required constant attention to an ever-evolving care model and the steady hand of leaders and team members who knew how to balance people and processes. As a result of their collective efforts and expertise, SickKids expanded their outreach footprint and gained a reputation as a trusted leader in school and community-based COVID-19 PCR testing as well as paediatric vaccination. Strong partnerships were established with various school boards and community agencies. The team was called upon regularly by various PHUs as well as representatives from the Shelter Support and Housing Administration (SSHA), Ministries of Health, Education and Children, Community and Social Services to learn more about the Outreach program and/or to engage the team in various COVID-19 outreach and education activities across the community. None of this would have been possible without the dedication and commitment of the Testing, Vaccination and Community Outreach team as well as the program leadership highlighting the fact that: The strength of the team comes from each individual, but the strength of each individual comes from the team.

Outcomes and Learning

Building and managing the SickKids COVID-19 Testing, Vaccination and Community Outreach Program has been a rewarding undertaking. The team has remained committed to monitoring and evaluating outcomes and learnings, and has sought input from the community and other stakeholders to help inform continuous process improvements. OH colleagues commented on how SickKids became a ‘stimulus for system integration’ and a ‘great go-to partner, always willing and eager to find solutions’. They noted how ‘well-organized and well-coordinated the end-to-end testing process’ was and suggested SickKids’ approach, process, and tools could serve as a model for others. OH actively shared learnings and promoted SickKids approach with other organizations to help build system efficiencies and enhance COVID-19 response efforts. Several factors contributed to the development and successful operations of the program. These factors are summarized in Figure 20 and described as follows.

Figure 20: Critical Success Factors

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<thead>
<tr>
<th>Team Skills &amp; Capacity</th>
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<tbody>
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<td>Leadership Commitment</td>
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<tr>
<td>Investment in Resources &amp; Infrastructure</td>
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<tr>
<td>Collaborative Partnerships</td>
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<tr>
<td>Change Management</td>
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<tr>
<td>Ongoing Evaluation &amp; Continuous Improvement</td>
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Successful COVID-19 Outreach Program
Analysis of Critical Success Factors

Team Skills and Capacity

In the first year of the Pandemic, hospital services and activity ramped down significantly, at the direction of Ontario’s Chief Medical Officer of Health. At SickKids, this provided staffing capacity to establish a mobile team and respond to the call for action in the community. As the program grew, the complement of staff and skill set expanded. Each team member took on an important role in supporting program operations, bringing unique experiences and a core set of skills that were essential to the development and delivery of the comprehensive, end-to-end services. These skills included a mix of technical as well as non-technical skills (i.e., empathy, patience, flexibility, organization, communication, cultural safety). The non-technical skills became paramount in navigating rapid changes in provincial testing and vaccination guidance as well as ensuring Outreach efforts and intentions were designed to be relevant and that information, education and services were tailored to meet the needs and interests of the intended community.

Leadership Commitment

Leadership was by far one of the most substantive factors supporting the success of the SickKids COVID-19 Testing, Vaccination and Community Outreach Program. From the early days, and throughout each subsequent phase of the Pandemic, the pace of change demanded adaptive, flexible leadership to rationally recognize challenges and respond to those challenges in appropriate and meaningful ways. It began with SickKids President and CEO, Dr. Ronald Cohn and his vision to ‘give back’ and support the surrounding community. Leveraging existing partnerships and networks, he helped introduce opportunities where SickKids could share expertise and augment early COVID-19 response efforts. He engaged members of the SickKids Senior leadership team (i.e., Judy Van Clieaf; Karen Kinnear; Jeff Mainland) to mobilize staffing and infrastructure and soon after, the strategy was launched to assist vulnerable populations who were struggling to gain access to COVID-19 testing and information.

Further medical (i.e., Dr. Julia Orkin; Dr. Michelle Science; Dr. Aaron Campigotto), strategic (i.e., C. Bruce-Barrett) operational (i.e., Lisa Pendergast; Christine McGovern; Jessica Reinprecht) and practice leaders (i.e., Chitra Gnanasabesan; Stephanie Dykes; Stephanie Nasso; Alice Heisey; Donna Solomon) took on the task of giving the strategy ‘legs’ as they guided the program to embrace the original vision and fulfill the goals of COVID-19 Outreach. Acting as coaches, mentors, and advisors, these leaders supported and assisted the Outreach team in the design and delivery of services, information and resources that were tailored to the needs of the community. The team in turn, remained committed and highly engaged in their work with many reporting how rewarding, enlightening, and fulfilling it was to have an opportunity to ‘give back’ in such a meaningful way.

Investment in Resources and Infrastructure

Having a dedicated and collaborative workspace was critical to the growth of the various COVID-19 testing, vaccination and community outreach initiatives. This centralized space was removed from the main clinical areas of the hospital, to offer an element of safety and isolation. The 555 University Ave. Entrance (and Rotunda) eventually became the ‘permanent’
home to the COVID-19 Testing, Vaccination and Community Outreach Centre. The drive-through set-up at 555 University Ave enabled RNs to facilitate both COVID-19 testing and vaccination while the patient was seated in their car. It provided an easy, sheltered option for those without cars in addition to safe, private areas inside when needed. The Rotunda housed all COVID-19 testing and vaccination supplies and served as a workspace for staff. The ability to have on-site headquarters proved to be critical success factor for the Clinical Manager and Team Lead RNs, who were able to be on-site to support the RNs and Patient Information Clerks with daily program operations.

Upon program inception at the start of the COVID-19 Pandemic, staffing recruitment proved to be a challenge. The early COVID-19 mobile testing program required coordination of ordering and reporting, management of questions, communication with lab technicians for COVID positive patients, and between staff, required additional time commitment daily, outside of the anticipated 9:00 am – 5:00 pm hours. Staff were eventually redeployed to work within the realm of COVID-19 testing, and the program was able to continue to grow and expand. Significant program growth in 2021 and 2022 necessitated robust staffing recruitment efforts. Addition of required team members, on contract, was critical to program functioning and success allowing for flexibility over the course of the COVID-19 Pandemic.

**Collaborative Partnerships**

Building collaborative partnerships, both within and outside the hospital walls, took time, effort, and commitment. Partnerships, however, became a crucial enabler in meeting the intended goals of Outreach affording opportunity to leverage limited resources, create alliances, and reach new communities more easily.

The SickKids team spent considerable time meeting with other hospitals, community health centres, and social service organizations seeking advice and guidance on various processes and practices. Further time was dedicated to building trust and exploring opportunities where SickKids could lead, augment, or build specific paediatric expertise.

Engaging system leadership (e.g., OH, TC, LHIN, TPH, PHUs) also proved to be crucial in addressing clearly defined questions about scope, accountability, and responsibilities particularly as information about COVID-19 was evolving rapidly and required swift implementation. Ongoing communication and collaboration with system partners and active participation at various tables helped to ensure that programming remained updated and aligned with provincial guidance and expectations.

**Change Management**

The ultimate keystone of the SickKids COVID-19 Testing, Vaccination and Community Outreach Program has been the team and their capacity to effectively manage change. Throughout the development and delivery of various program efforts and initiatives, they have remained nimble in navigating change and steadfast in their commitment to collaboration and partnership. As demand for testing, vaccination and IPAC components grew, and guidance rapidly evolved, they had to pivot frequently, shifting program operations, adapting and responding at a rapid pace, always ensuring the needs of the community were considered and that the interventions were intentional and well received.
Team members were cross trained within all operational components to be able to respond to fluctuating demands and volumes as required (i.e., testing, vaccination, and community coordination). Having a foundational understanding of all operational components made it easier to provide support across those elements of the program where there was the most pressure, particularly during certain ‘waves’ of the COVID-19 pandemic.

The COVID-19 Testing, Vaccination and Community Outreach team came to view change and change management with enthusiasm and positivity. They embraced new initiatives and/or refinements of existing processes as opportunities to grow and improve program operations. It also gave them a chance to exercise their creativity and enhance their skills. Such positivity and commitment to change and improvement can be attributed to the program leadership that encouraged the team to bring ideas forward, and then coached them to act on those ideas. This served to build trust, boosted engagement, and motivated the team towards further change and improvement as a way to better serve the community.

**Ongoing Evaluation and Continuous Improvement**

Each Outreach program component (i.e., testing; vaccination; VCS) incorporated both formal and informal qualitative and quantitative evaluations. Results were subsequently analyzed and helped inform operational improvements as well as opportunities for future enhancements. Feedback from patients, families, staff, and community members reinforced the pillars of each program, as they identified what was most important for them.

Lessons learned from ongoing program evaluations will prove valuable in helping to inform any future program development that seeks to address access to health services and/or information for vulnerable communities. While program operations are winding down, program evaluations have helped identify the need for ongoing partnerships with the shelter sector. As well, opportunities have been identified to adopt the VCS model for other routine childhood vaccines and explore the potential for future needle-phobia-specific programs within the hospital and community settings.

**Conclusion**

What began in response to an urgent call to action from Ontario Health, soon grew into a multi-faceted COVID-19 Community Outreach program. With a mission to enhance access to COVID-19 testing, information and vaccination supports, the SickKids team remained focused on defining, understanding, and addressing the ease with which the community could gain access to services and information. Evaluation of each aspect of programming provided insight into strengths and enablers but more importantly, helped the team identify barriers and opportunities to better meet the needs of the community now and into the future- the true essence of successful planning, design, and delivery of outreach.
Dear Sick Kids,

Thank you so much for helping to keep us safe.

RH4 families are grateful for this opportunity at a time when cases are up and we all want to be safe—thank you!
References


### Appendix A: Schedule of Planning Activities in preparation for the launch of the mobile COVID-19 swab testing team

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Activity Highlights</th>
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| Guidance and Practice Documents/Resources/Tools   | • Created practice documents distilled from government guidance documents and updated them to keep current information about COVID-19  
• Customized practice documents to community applications to guide the MST to transfer skill set related to community care  
• Reviewed by IPAC and Occupational Health & Safety teams |
| Staffing                                           | **Interviewed and recruited:**  
• Administrative Lead(s) (1.0 FTE capacity)  
• Mobile swab testing team: 2 teams of 3 staff were selected, maintaining a back-up of 2 staff  
• Registration Clerk; 1 staff, maintaining a back-up of 2 staff  
• Results ordering/reporting daily Monday-Saturday; coverage from MDs/NPs to assist with results review and positive test disclosure. This member should consider their time ‘on-call’ |
| SickKids Support Team                              | **Engaged:**  
• Occupational Health & Safety teams reviewed practice documents  
• IPAC teams reviewed policies and education materials with community providers and leveraged expertise for virtual IPAC offering to Congregate Care Settings.  
• Epic team created ‘outpatient’ results screen for ordering tests, reviewing results, and printing specimen labels  
• Microbiology laboratory team supported with test sample processing, provided test-kits, and alerted ‘on-call’ staff on positive test results that required immediate communication  
• Legal/Risk team reviewed service agreements, and contracts between SickKids and community agencies to consent MST testing in individual community facilities  
• Transportation and vehicle license procured for SickKids vehicles  
• Connected Care team consulted to explore how QuickHits (tools created to support community nursing with assessments at recovery sites) can be leveraged during COVID-19 Wave 1 |
| Logistical Details                                 | • Obtained refrigerator for possible sample storage  
• Maintained MST driver information to add to vehicle insurance  
• Procured personal protective equipment (PPE), and other items for the MST team  
• Acquired office supplies, computers with Epic, label printer, barcode scanner, each team carried a cell phone and extra cell phone was kept at the SickKids home base  
• Obtained coolers and ice packs for test sample storage during commute  
• Secured protected space (home base) for MST and CSS members as the main office  
• Setup a secure email address to transfer confidential information (lab requisitions and consents) from community providers |
| Education and Training                             | • MST received training on PPE donning and doffing from the IPAC team  
• MST received training on NP swab testing from the Occupational Health & Safety team  
• Results reporting members, Registration Clerks, and MST teams received training on Epic entries from the Epic team  
• MST received general orientation to their role, practice, and guidance documents, and to the processes by the CSS and Administrative teams |
### Appendix B: Mobile COVID-19 Swab Testing Process

<table>
<thead>
<tr>
<th>Process Activities</th>
<th>Mobile Swab Team End-to-End Process Description</th>
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| **Intake**         | • This process occurred in three waves (Attendant Care/Disability-Specific, Child and Youth Mental Health Residential Services, and Family and Youth Shelters)  
                    • Organizations in scope for SickKids MST were provided intake documents/questionnaire to complete  
                    • Once the testing eligibility criteria were met, the agencies contacted SickKids MST (versus SickKids completing proactive testing)  
                    • A high-level Needs Assessment and Environmental Risk Assessment were completed to customize supports and prepare the MST staff  
                    • The community agencies obtained consent for all clients and staff to be tested, and completed laboratory requisition forms |
| **Testing**        | • Two MST teams with three staff each was composed of nurses (RNs) and respiratory therapist (RRT) (roles: Lead, Support, Scribe)  
                    • Each testing process took 3-5 minutes per client  
                    • Before the MST teams were dispatched, each client to be tested was registered in the Mobile Testing Unit Epic Clinic by the Registration Clerk  
                    • Specimen labels and schedules (community agencies, key contacts, clients to be tested) were printed and taken by the team  
                    • Teams also carried coolers, ice, PPE backpack, specimen bags, and test-kits. Teams took extra test-kits in the event unregistered clients required testing  
                    • When teams return to SickKids following testing, specimens were entered into the Epic Clinic through specimen label barcoding and thereafter hand delivered to the SickKids Microbiology Lab. For any unregistered clients tested, files were created, and the registration and specimen collection process were completed |
| **Results Disclosure** | • Provided results to community agencies within 12-15 (maximum 24) hours following receipt of the NP swabs at the Microbiology Lab at SickKids  
                           • Performed in batches per community organization. A physician (MD)/nurse practitioner (NP) was assigned an organization and received the list of all staff and clients to be tested. The MD/NP completed a review note per client tested and the MST member completed disclosure calls to the clients directly  
                           • For positive test results, the SickKids Lab contacted the MD/NP immediately; and the MD/NP completed the Public Health reporting and disclosed results directly to the respective clients |
| **Post-Result Disclosure** | • This process was specific to the Shelters  
                           • It involved prior collaboration and planning between Toronto Public Health (TPH) and other support agencies (Planned Parenthood and/or Inner-City Health Associates)  
                           • With positive test results, arrangements were made for the support agency to be present at the Shelter site when results were being disclosed to leverage their expertise in supporting clients  
                           • The Shelters and TPH were responsible for the disposition planning related to transportation of COVID positive clients to identified recovery sites affiliated with them |
<table>
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<tr>
<th>Stakeholder Name (MCCSS Shelter)</th>
<th>Interest or Perspective</th>
<th>Site-Specific Features</th>
<th>How and When to Engage</th>
<th>Positive Outcome(s)</th>
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| Rosalie Hall                     | Review of best practices in the current environment  
- Use of PPE: Families want to hold the babies—how to do that safely  
- What PPE to use: Current use of masks and face shields when to use gloves and gowns  
- Concerns around vaccine hesitancy and compliance | Up to 23 Residents total (13 mom and 10 babies)  
School program: up to 24 young women (Virtual learning right now)  
Childcare centre: up to 39 infants | 1:1 Virtual IPAC consultation took place on June 6, 2021, | Recommendations provided on how visitors can safely hold babies while reducing risk of transmission  
- visits should take place outdoors  
- mask and face shield should be worn throughout  
- visitors who want to more direct contact should use a gown  
When to use gloves and gowns was reviewed—dependent on risk of exposure to contaminants  
- in outbreak, contact droplet precautions will be used  
Discussion took place about vaccination hesitancy and youth. Strategies included:  
- keep encouraging, keep trying to get youth onboard  
- educate them on where to get credible information  
- provide information around pregnancy and vaccine  
Vaccine and Work hesitancy strategies were discussed. Strategies included:  
- questionnaire sent to learn more about concerns around vaccines  
- discussion around mandatory training for staff, education packages, public health modules. Staff may be required to sign that they have read the training package,  
- offer different types of learning activities to allow people to have choices about their learning/training. This accommodates different learning styles and needs.  
- bring attention out myths about vaccines  
Reassurance provided to Rosalie Hall that they have done an excellent job in implementing IPAC measures. |
| Canadian Hellen Keller Centre     | Review of internal procedures screening  
- Help set up isolation protocols  
- Managing behaviors of residents  
- Use of common spaces  
- Equipment (face shields)  
- Higher risk populations | 16 residents who live in their own apartments  
The patient population is deaf-blind  
60—about 15 office staff generally work from home  
45 intervenors on staff who work in house or other sites, or homes | 1:1 Virtual IPAC consultation took place on June 6, 2021, | Internal screening procedures looked in order, there were no additional recommendations to add.  
Strategies on how to manage particular behaviors was discussed. Strategies included:  
- must mitigate risk as best a possible while respecting the autonomy and unique needs of the residents  
- must adapt as best as possible considering the guidance/recommendations provided by the ministry and public health  
Isolation protocols were discussed  
- Review of using PPE was done  
- Closing of doors to limit transmission is important if someone develops symptoms  
- Useful to allow caregiver to come and assist the resident, this will help to reduce exposure of staff and other residents  
Use of common spaces was also discussed. Strategies included:  
- partitions used as best as possible  
- creativity used to incorporate existing supplies to help keep residents’ distance  
Intervenor community was highlighted as a strength  
CHKC has been able to use the resources available, adapting all the time  
- Able to come up with socially distanced events i.e., BBQ, incorporating staggered times  
Recommendations provided around equipment such as face shields  
Discussion took place around considerations for higher risk residents with other medical needs.  
- It was identified that intervenor staff that they have a unique set of skills and therefore it’s beneficial that the intervenor community help each other as needed  
- Some of the barriers that intervenor’s experience when accompanying residents to appointments was discussed.  
Discussion around the importance of the organization to foster a very supportive and collaborative work environment.  
Reassurance provided to the CHKC that they have been doing excellent work in IPAC. |
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<tr>
<th>Question 1: Is the partnership with SickKids helping your organization/sector?</th>
<th>Question 2: Could you briefly describe the positive outcomes?</th>
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<tbody>
<tr>
<td><strong>Ambuja Banerjee</strong>  (Violence Against Women Sector, MCCSS team)</td>
<td>The partnership with SickKids has benefitted a majority of the VAW and I&amp;I sector as it has significantly improved accessibility to testing services at our shelters, provided more opportunity for education session and allowed our team to provide more resources relative to children. We are incredibly grateful for the support that SickKids has provided our sector and it has overall been an amazing experience working with such a lovely team.”</td>
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<td>‘This partnership has been very beneficial to our sectors as it has provided us with means to get tested on site and to minimize transmission on-site as we are able to detect positive cases more quickly and isolate accordingly. The education provided by SickKids has also helped our clients and staff make more informed decisions regarding the COVID-19 vaccines and provided more confidence in following other IPAC measure’</td>
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<td><strong>Matthew Lee</strong>  (Strategic Advisor, MCCSS team)</td>
<td>‘Yes, MCCSS Toronto Region and our respective funded agencies and sectors have benefitted greatly from the partnership with SickKids.’</td>
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<td>There have been several positive outcomes from the MCCSS/SickKids partnership, below are some key outcomes (not exhaustive):  • Built and established a reliable source for IPAC and IPAC-related advice  • Source of reliable IPAC &amp; IPAC-related information  • Two-way information exchange allowing for the health sector to better understand our MCCSS congregate-setting providers  • MCCSS congregate-setting agencies received several helpful and critical IPAC site assessments.  • Contributed to building capacity for our IPAC Champions in executing their functions for their sectors.  • Created a partnership that will play a critical role and feed into longer-term IPAC sustainability for MCCSS Toronto Region providers.  • Assisted IPAC Champions with practical &amp; on-the-ground supports such as saliva testing, addressing vaccine hesitancy training module for younger aged children, etc.  • Responded to IPAC inquiries from both MCCSS Toronto Region and IPAC Champions</td>
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<td><strong>Julie Tang</strong>  (Human Resources Coordinator – Massey Centre)</td>
<td>‘Yes, very much so’</td>
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<td>‘As a small agency working with young children/mothers, but with no in house nursing or IPAC expertise, SickKids support has been incredible as we navigate the ever-changing COVID situation. The timely response, input from individuals with various roles (nursing; IPAC; HR) allows Massey Centre to communicate policies, procedures, etc. with more confidence. We very much appreciate being respected as a community partner and though our work is so different from SickKids, that everyone tries to see things from our lens.’</td>
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<td><strong>Froschlee Mejia</strong>  (Massey Centre)</td>
<td>‘Yes, this partnership with SickKids is very beneficial. We are part of congregate care, and this is a broad category of care that encompasses many types of services. We are unique in a way that we are needing to interpret guidance documents to make sense for our young parents in our care. So, this is partnership has helped a lot navigating the changes and documents to build IPAC policies and procedures,’</td>
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<td>There are several positive outcomes:  • The resources that were given were excellent  • The framework document that was shared will be used to formulate our path to reopening and endemic planning moving forward which we really appreciated  • Being able to have MCCSS and Sick kids subject matter experts to speak to was also reassuring and helpful.</td>
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Guidance documents from OH and TPH exist for IPAC measures in child care center settings.

This playbook deciphers key information from these guidance documents, specifically the IPAC environmental health factors.
How Does COVID-19 Spread?

There are also guidance documents and tools on COVID-19 that have been specifically adapted for child care center staff to use as information to create their IPAC policies and procedures, staff training programs, communication to caregivers/parents, and to use as posters for their facilities as it relates to COVID-19 infection and spread. This playbook also incorporates these considerations in addition to the environmental health factors as part of routine IPAC measures.

Mainly spreads from close contact with an infected person when they breathe, talk, cough or sneeze.

People are contagious when they are sick & 2 days before they show symptoms.

Respiratory droplets can land on surfaces. The virus can live for hours, but is not easily spread this way.

Smaller respiratory droplets, called aerosols, can linger in the air before falling to the ground.

Spreads easily when there are more people indoors, for a long period of time, with poor airflow.

**ACTION:** Stay 6 feet from others & wear a mask.

**ACTION:** Stay home & self-isolate if you are sick.

**ACTION:** Clean surfaces & hands often.

**ACTION:** Open windows. Increase airflow & ventilation.

**ACTION:** Avoid crowds, keep trips short & wear a mask.

Enhanced Cleaning and Disinfection Practices

- Disinfect High-Touch Surfaces/Objects (twice/day, between cohorts)
- Disinfectants with Drug Identification Number (check expiry dates, material safety data sheet)
- Setup Cleaning Frequency of Belongings (blankets, toys, cots)
- Maintain Cleaning Logs, Audit Practices (share learnings)
- Train Staff on Disinfectant Use (contact time, safe use/storage, PPE use)
- Follow Guidance on Carpets/Floor Mat Cleaning

SIX PRACTICE POINTS