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INTRODUCTION

Background
This study is the Phase II evaluation of the Toronto District School Board’s (TDSB) Model Schools Paediatric Health Initiative (MSPHI). Launched in 2010 as part of the TDSB’s Model Schools for Inner Cities (MSIC) program, the MSPHI aims to offer in-school health clinics in priority neighbourhoods to serve children in the MSIC program. This integrated health initiative recognizes schools as an innovative access point for children facing health care barriers to receive needed services in the most direct and efficient way, including assessment, diagnosis, management, and follow-up of multiple health and developmental concerns. In 2010-11, two in-school health clinics were opened in MSIC elementary schools. The subsequent two years witnessed four additional MSPHI clinics in different parts of the city, one of which was housed in a secondary school. As illustrated in Figure 1, all these MSIC in-school health clinics were supported by two main pillars: medical service providers within each community (e.g., community health centres and/or hospitals), and the Toronto Foundation for Student Success (TFSS)¹.

Figure 1: The MSPHI Model

¹The TFSS, the arm’s length charitable foundation of the TDSB, leveraged funds for this new initiative while also securing commitments for the medical staffing and overseeing, with the School Board, all the operational requirements.
With research funding support from the Ministry of Education, a multi-phase research plan was developed in 2011. The Phase I study, which was completed in Fall 2012, was a retrospective assessment of the first pilot year of the initiative. The report covers the origin of the MSPHI, a literature review summary, and case studies of the first two TDSB’s in-school health clinics - Sprucecourt Public School, and George Webster Elementary School.

**Focus of the Study**

This Phase II evaluation consists of two levels of analysis – micro and macro. At the micro level, a new case study was conducted to examine the TDSB’s first secondary school MSPHI clinic, which was opened at North Albion Collegiate Institute (NACI) in 2012-13. As in Case Studies 1 and 2 (presented in the Phase I report), this Case Study 3 describes:

- a) the demographic profile of NACI
- b) the delivery model adopted
- c) community partnerships
- d) number of appointments
- e) presenting health issues
- f) types of services provided
- g) observable impacts
- h) challenges and needs of the clinic

At the macro level, this Phase II research analyzes the overall MSPHI efforts as a whole by exploring the following three research questions:

- a) Since the opening of the first two in-school health clinics in 2010-11, what progress has the MSPHI made at the School Board over a three year period?
- b) What were the overall impacts of the MSPHI?
- c) What are the conditions required to ensure effectiveness and sustainability of the MSPHI?
Data Collection Methods

The findings of this Phase II Evaluation were based on both quantitative and qualitative data collection methods and sources.

Quantitative Data

1. **TDSB’s 2011 Student Census School Report for NACI** – Information about NACI’s student demographics and health-related issues was captured from the school’s 2011 Student Census report. The data provided valuable contextual information for understanding the needs and conditions of the students at the school.

2. **MSPHI database** – This database, maintained by the MSPHI central office, records ongoing information about student registrations, appointments, feeder schools, and presenting health issues for all TDSB in-school health clinics. For this study, cumulative data gathered over the three school years (2010-2013) were employed to identify the trends and patterns of the MSPHI in the School Board as a whole.

Qualitative Data

1. **Interviews with NACI clinic staff** – The Clinic Coordinator and the Nurse Practitioner at the NACI clinic were interviewed. Content analysis of the recorded interview notes was conducted by two research staff members to identify themes and key findings.

2. **Consultation with MSPHI’s central office staff** – Consultation with the Program Director and the Program Manager provided insights into the conditions, clinic usage patterns, challenges, as well as the expected and unanticipated outcomes of the MSPHI efforts across different clinic sites.

3. **Observations by front-line staff** – Throughout the school years, observational narratives from Clinic Coordinators and health care providers of different clinics were documented and compiled. Collections of these anecdotes were analyzed to supplement findings from the previously mentioned data sources.
This publication contains pages that have been left intentionally blank for proper pagination when printing.
FINDINGS

- Case Study 3: A Secondary School Health Clinic
- Three-year Progress of the MSPHI (2011-2013)
- Overall Impacts of the MSPHI
MODDEL SCHEOLS PEDIATRIC HEALTH INITIATIVE: IN-SCHOOL HEALTH CLINICS Phase II Report
CASE STUDY 3: IN-SCHOOL HEALTH CLINIC AT NORTH ALBION COLLEGIATE INSTITUTE

• School Demographics
• Clinic Delivery Model
• Number of Appointments
• Presenting Medical Issues
• Observable Impacts
• Next Steps
CASE STUDY 3: IN-SCHOOL HEALTH CLINIC AT NORTH ALBION COLLEGIATE INSTITUTE

School Demographics

In 2011-12, North Albion Collegiate Institute (NACI) had a student population of 1,232. Based on the Toronto District School Board’s (TDSB) 2011 Learning Opportunities Index\(^\text{2}\) (LOI), NACI ranked 57 out of a total 109 secondary schools within the school board. Essentially, schools with a ranking closer to “1” experience a higher level of poverty-related challenges that affect student success. According to the TDSB’s 2011 Student Census, while 49% of the TDSB’s secondary school students were from families within the three lower socio-economic categories\(^3\), as high as 69% of the students at NACI fell within this lower range.

<table>
<thead>
<tr>
<th>School Characteristic</th>
<th>NACI (N=1,082)</th>
<th>TDSB (N=71,671)</th>
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<tbody>
<tr>
<td>Both parents born outside of Canada</td>
<td>95%</td>
<td>72%</td>
</tr>
<tr>
<td>Students’ primary home language* (other than English)</td>
<td>65%</td>
<td>56%</td>
</tr>
<tr>
<td>Two-parent household</td>
<td>77%</td>
<td>76%</td>
</tr>
<tr>
<td>Mother’s education level (university and college)</td>
<td>47%</td>
<td>56%</td>
</tr>
<tr>
<td>Father’s education level (university and college)</td>
<td>55%</td>
<td>59%</td>
</tr>
<tr>
<td>Three lowest socio-economic status categories</td>
<td>69%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Source: TDSB’s 2011 Student Census. *Students’ primary home language (other than English) from School Information Systems

As shown in Table 1, the TDSB’s 2011 Student Census indicates that 95% of NACI students had both of their parents born outside of Canada – a percentage much higher than that of the overall TDSB secondary school population (72%). NACI had a higher proportion of students (65%) speaking a first language other than English at home than the TDSB as a whole (56%). Also, compared to the general TDSB population, while NACI had a comparable percentage of students from two-parent families, it had a lower percentage of parents with post-secondary (university or college) education.

\(^2\) The Learning Opportunities Index (LOI) provides a score and ranking for TDSB schools according to external challenges - median income, proportion of low-income families, proportion of families receiving social assistance, education of adults, and proportion of single-parent families.

\(^3\) These three SES categories include skilled/semi-skilled clerical and trades; unskilled clerical and trades; and non-remunerative.
Clinic Delivery Model

In October 2012, under the MSIC program, the TDSB opened its first secondary school health clinic at NACI. This clinic adopted a Nurse Practitioner model and the staff consisted of:

1. a **Nurse Practitioner** (NP) employed by Rexdale Community Health Centre (RCHC) to work at NACI every Monday afternoon; and
2. a **Clinic Coordinator**\(^4\) funded through the Toronto Foundation for Student Success (TFSS) to support the operations and outreach work of the clinic.

Unlike the NP model at the elementary school sites, there were no other medical specialists scheduled for the NACI clinic, as the need for professional services regarding developmental issues was less relevant for the adolescent population. Instead, when external consultations or referrals to medical specialists were required, they were more related to specific physical health issues. These students were referred to the Rexdale Community Health Centre (RCHC), where they received a full scope of off-site health care services.

At the NACI in-school health clinic, the key medical personnel was the NP, who took appointments with students for one half-day a week (Monday) between 12:30 p.m. and 4:30 p.m. These appointments often extended beyond this four-hour allotted period. Although the NP had not needed to consult with a family physician regarding the students she had seen to date, where necessary she could refer to the physician at her ‘main site’ (RCHC). The NP explained that it was common practice to refer secondary school students for external health services such as vision or ophthalmological consultation, chronic allergy treatment, and physiotherapy services.

**The Role of the Nurse Practitioner**

The NP at NACI offered multiple services:

1. **Primary care associated with physical health** – for example, immunizations, annual physicals, episodic illness care, injury treatment, and illness prevention

---

\(^4\) The Clinic Coordinator was paid through philanthropic funds, while other medical personnel were either salaried (CHCs), or they billed OHIP or the Ministry of Health. As in other MSPHI clinics, the Clinic Coordinator at NACI was also a multilingual International Medical Graduate (IMG).
2. **Primary care associated with mental health and related counselling** – for example, anxiety, depression, generalized stress-related issues (affecting sleep, digestion, focus, motivation, etc.)

3. **Nutritional or dietary counselling** – for example, healthy lifestyle choices, and eating disorders

4. **Sexual health counselling** – for example, contraception, and sexually transmitted infections

It should be noted that unlike other MSPHI clinics which served elementary school students, this secondary school health clinic did not only have larger caseloads of counselling for mental health, it also provided multiple counselling services related to nutrition, diet, as well as sexual health issues - which are common concerns to adolescents.

**The Role of the Clinic Coordinator**

The Clinic Coordinator played multiple roles at the clinic.

1. **Public relations through:**
   - clinic outreach activities such as school information nights, staff meetings, and parent-teacher interview evenings (the Clinic Coordinator was multi-lingual and as such could comfortably communicate with parents whose first language was not English);
   - coordinating with the school council to make clinic announcements (i.e., hours of operation, flu shot clinics, immunization dates, services offered at RCHC, etc.); and
   - building trust and rapport with the adolescent student population - a unique focus for this clinic that was different from the elementary school MSPHI clinics with younger students where communication was primarily through a parent or caregiver.

*It was important to set a tone for this clinic to the teenagers that came here. We’ve been able to build on trust and to develop rapport – even in the hallways the students know who I am and that is very important if we want students that are teenagers to come to us and use the clinic.*

Clinic Coordinator
2. **Operations alignment to ensure:**
   - appointments with the NP were coordinated, and sufficient time was allotted for each student;
   - all patient information was collected and recorded from the initial visit or follow-up appointment, and was accessible to the NP;
   - all scheduling and referrals, and updating and management of the patient database were maintained;
   - frequent communication with the NP regarding patients, referrals, and follow-up care;
   - communication with school guidance department and administration; and
   - alignment of NP appointments and referrals to the RCHC.

3. **Support for students to ensure:**
   - the clinic offered an environment of culturally-sensitive care;
   - the student’s information discussed (i.e., in a counselling session) would remain confidential;
   - parents were notified at the professional discretion of the NP should she feel the student was in any danger or that contact with the parent(s) was warranted; and
   - the unique needs of adolescents such as their concerns, fears, or stress were recognized and validated, and support was provided.

   *She [the NP] is always booked. Word has spread amongst the students that it is helpful to come and speak with her. First, we focused on awareness, and then we built trust. Peer-to-peer ‘word of mouth’ was essential for this clinic’s success. It is more likely that a student will come if one of their friends suggests it.* (Clinic Coordinator)

4. **Support for families to ensure:**
   - literature sent home to parents for physician referral (at RCHC) if a student at the clinic had younger siblings or other family members that did not have a primary care provider;
   - information sent home through students about availability of Newcomer Services and language services (e.g., English as a Second Language support); and
appropriate social and emotional support could be arranged with TDSB Professional Services through the clinic liaising with school administration.

**Number of Students and Appointments Served**

As of June 2013, this new in-school health clinic served as many as 104 students and a total of 144 appointments. All users of this in-school health clinic attended NACI. As shown in *Not a valid bookmark self-reference*, Grade 12 students tended to use the service the most. It should also be noted that about 1 in 5 (19%) of the appointments were “unattached” students – that is, those without a primary health care provider.

![Figure 2: NACI Registrations as of June 2013](image)

**Appointment Scheduling**

Unique to the in-school health clinic at NACI was the finding that adolescent students themselves were booking appointments at the clinic. The clinics located within elementary schools communicated with a parent or caregiver connected to the child for appointment scheduling. However, the clinic staff at NACI mainly communicated with the secondary school students directly when it came to appointment scheduling. There were instances when parents were contacted to arrange an appointment, but the majority of appointments were made by the students themselves. For instance, at NACI it was common for a student to speak with one of the clinic staff in the hallway about booking an appointment or for a student to walk into the
Clinic staff further reiterated that trust and confidentiality were paramount for this age group’s use of the clinic.

**Presenting Medical Issues**

**Physical Health Issues**

There were two types of appointments for physical health addressed by the clinic.

1. Illnesses or health issues that could be categorized as episodic: These were assessed, discussed, or treated during a visit with the NP.

2. Referral appointments for chronic health conditions: For example, students were referred to allergy specialists or to the RCHC for placement with a family physician. Another area of referrals involved vision testing. The NP was concerned with the high number of secondary school students she had seen at the clinic that required eyeglasses. In fact, according to the TDSB’s 2011 Student Census report on NACI, nearly 20% of the students had never had their eyes tested.

> I did not expect to see so many high school students that needed glasses - but were unable to get them. This is an issue that many people think only affects younger students in the elementary grades. (Nurse Practitioner)

Physical ailments such as colds and viral infections represented 13% of the presenting issues for physical health (see Figure 3). Also, under the category of physical health were vaccination appointments or flu shots, which accounted for a combined total of 54%. Through the Clinic Coordinator, a Toronto Public Health Nurse was connected with the NACI clinic to arrange immunizations and flu shots for students at the school clinic or at the RCHC. Figure 3 displays...
the presenting physical health issues at the NACI clinic based on the cumulative total of patient visits up to June 2013.

**Figure 3: Physical Health Presenting Issues at NACI as of June 2013**

![Bar chart showing the percentage of presenting issues at NACI](chart.png)

**Mental Health and Other Counselling Related Issues**

While the NP treated students with physical health concerns, the majority of her appointments focused on counselling. In fact, the share of presenting issues with students that fell under mental health and other counselling related issues made up 45% of the total 192 presenting issues recorded. The Clinic Coordinator also noticed a high number of NACI students looking for emotional support. The observations of the clinic workers indeed correspond with the recent TDSB’s 2011 Student Census findings on students’ emotional health. As shown in Figure 4, the emotional well-being of the general adolescent population dropped drastically during their secondary school years, especially when they were closer to their graduating years. This may partially explain why the largest proportion (38%) of appointments, as shown in Error! Not a valid bookmark self-reference., was comprised of Grade 12 students.
Three types of appointments related to mental health and other associated counselling issues were served at the NACI clinic.

1. Mental Health Care and Related Counselling

In NACI, the predominant presenting issues were anxiety, depression, stress, and other mental health concerns that required counselling. As indicated by the Clinic Coordinator and NP, there were appointments initially booked citing physical ailments when in fact, the students required counselling services related to mental or emotional health. The majority of these presenting issues did not require external consultation, but entailed immediate counselling services at the time of the student’s first visit. Where necessary, the NP would refer students to the RCHC for cognitive behavioural counselling.

*They are looking for someone to trust. Someone they can speak to about school pressures or family pressures. Some of the students do have good relationships with their parents but they don’t feel they can talk to the adult in their home. Other students do not have a good relationship with their parents. Either way they come here and find someone to confide in where their feelings will be kept confidential. (Nurse Practitioner)*

![Figure 4: Students’ Emotional Well-being by Grade](image-url)
2. Nutritional and Healthy Lifestyle Counselling

The second category of counselling and emotional support offered by the NP focused on issues with the student’s diet, eating habits, and lifestyle. Again, based on the TDSB’s 2011 Student Census report for NACI, nearly 60% of the students did not have breakfast every day, nor did they eat fruits and vegetables on a daily basis. Nearly half (45%) of the NACI students did not have daily lunch, and most (58%) did not take part in regular physical activity – for example, for 30 minutes per day for at least five days a week (see Figure 5).

Figure 5: Eating Habits and Physical Activity: NACI Students

According to the NP, it was common for negative self-image issues to be discussed, especially for female students. Counselling also surrounded their food choices or physical exercise participation. Female students also came to the NP to discuss eating disorders (i.e., anorexia or bulimia) or disordered eating habits (i.e., skipping meals for weight loss).

The NP also provided counselling care that helped students improve their overall health.

Health promotion through nutritional counselling, dietary solutions, and healthy active lifestyle choices were all paramount to the clinic’s success. The NP explained that her nutritional consultation with students usually paired with counselling services for low self-esteem and negative self-image issues. She explained that in her appointments with students the presenting physical health issues (i.e., digestion, stress, sleep issues) were often connected to or exacerbated by poor diet choices (i.e., diets high in sugar, caffeine,
and skipped meal patterns). Many of these students underestimated how their dietary choices negatively impacted their ability to handle stress, feel motivated, and sleep well. She believed that dietician services would help students of this school, particularly the female students.

3. Sexual Health Counselling at NACI
The third category of counselling appointments concerned sexual health — for example, birth control, sexually transmitted infections, and teenage pregnancy. The Clinic Coordinator explained that it was common for students to book appointments for a physical ailment when in fact the student wished to discuss a sexual health issue with the NP. Students who required this type of counselling used the clinic services for various reasons:

- they did not have an adult at home with whom they could comfortably discuss their sexual health concerns;
- they liked the convenience of the in-school health clinic; or
- they were offered confidentiality at the in-school health clinic.

The NP and Clinic Coordinator explained that the acknowledgment of privacy and confidentiality for the adolescent population was crucial especially in this respect.

Additional Points on Mental Health and Other Related Counselling Appointments
The percentage of follow-up appointments at NACI was high (47%) compared to the overall average percentage of follow-up appointments at other MSPHI clinics in elementary schools (15%). The high demand for ongoing mental health and other related counselling appointments accounted for the larger number of follow-up appointments with the adolescent population (see Figure 6).
Two unanticipated findings can be derived from the high demand for counselling appointments:

1. the strong connection between acute physical ailments seen by the NP (i.e., headaches, indigestion, diarrhea, sleep issues, etc.) and the largely attributable connection to emotional unrest caused by stress and mental health related issues;

2. the important role played by the NACI clinic in providing a supportive environment for adolescents to confide in a trusted adult, which would help reduce the risk of disengagement from school. For instance, the NP explained that it was common for students to disclose the ‘real’ reason for their visit (i.e., personal concerns of an emotional nature) even though they had initially refrained from sharing personal information. These students who visited the clinic would return for follow-up counselling because they felt assured in the clinic’s confidentiality and that the NP was trustworthy.

In fact, a study conducted in New Zealand (Denny et al., 2003), which was cited in the Phase I report, clearly shows how adolescents, including those with access to a family physician, were more likely to avail themselves of preventative health services – such as assessment and counselling regarding nutrition, physical activity, and sexual health – when it was offered at their school-based health clinic than by other health care providers working in a different location.
Observable Impacts

While it would be too soon to determine the effectiveness of the NACI in-school health clinic after less than one year of operation, interviews with the clinic staff did reveal observable impacts that the clinic had already exhibited for students. The positive and potential impact of the clinic, can be categorized into the following four themes.

1. Improving student health and well-being
2. Addressing barriers for marginalized groups
3. Strengthening school and student relationships
4. Increasing opportunities for student success

1. **Improving Student Health and Well-being**

The primary goal of the NACI in-school health clinic was to provide access to health care and make it convenient and easy for students to get help, thereby improving their health and well-being for schooling. The NP explained:

> Many students who come to see us need help with stress and anxiety issues. They might be depressed; they aren’t sleeping. Their problems can be from family issues or school issues. Many of the teenaged girls have negative body image problems and they don’t know how to make healthy choices about their eating habits. If I can relieve some of that stress I believe they will do better in school.

The Clinic Coordinator shared the following story:

> A stressed young girl came into the clinic for an appointment. When asked, she did not want to mention the reason for her visit. At the consultation she revealed her fear of being pregnant as she had had unprotected intercourse. A pregnancy test was done at the clinic and revealed that she was not pregnant. She was advised about contraception and provided with adequate supply. The relief on her face was apparent and she decided to use contraception in the future.

---

Students who attend the NACI clinic are initially nervous to visit us with their sexual health issues/questions. However, once rapport is developed the students spread the word amongst their peers about the confidentiality we can provide them.

Clinic Coordinator
2. **Addressing Barriers for Marginalized Groups**

The Clinic Coordinator explained the difficult situations that many students would face regarding their health when they were from more challenging family backgrounds or lacked health coverage. He explained the impact of the NACI clinic on a student’s well-being while addressing this barrier:

A refugee claimant who had recently moved to Canada without any health coverage was having vision issues. After a visit with the Nurse Practitioner, he was referred to an ophthalmologist. As the family could not afford the cost of the ophthalmologist consultation, the Community Health Centre [CHC] covered the cost. It was discovered that he was suffering from a serious condition of the cornea which could have led to blindness if left untreated. The family was not able to afford the procedure. NACI contacted various clinics and a centre was found that agreed to perform the procedure on one eye for free. The cost of the other eye will be covered by the CHC. Thanks to our timely identification his eye sight was saved.

The NP noted that many immigrant families within the NACI community were unfamiliar with the health care system. As observed by the Clinic Coordinator:

> It is common for parents to be surprised that their child had access to health care right at the school. And the connection that we also have to the Rexdale Community Health Centre and Toronto Foundation for Student Success was an added benefit for them. The Community Health Centres have excellent resources for immigrant families facing settlement issues or are in need of language services – we are that connection.

3. **Strengthening School and Student Relationships**

The NP and Clinic Coordinator reported their positive experience with the school staff at NACI. They talked about the high number of teacher referrals they received for students attending the clinic. There were also instances where a school guidance counsellor would walk a student to the clinic so that the services of the clinic could be explained to the student. The Clinic Coordinator explained:
We distributed a lot of literature and hand-outs before we opened. The school council was a big help for us. The guidance office was very supportive of the clinic as they knew the many needs of the students often extended beyond academic stresses. Even though what the students discussed was confidential, it was common for a teacher or guidance office staff to ask how a student was doing and to check that they had been to the clinic.

Clinic staff were also committed to having students feel welcome at the clinic, thereby increasing their engagement in school. As commented by the Clinic Coordinator:

Students in the school became very comfortable and familiar with myself and the Nurse Practitioner; they would wave and have conversations with us in the hallway. Some students would even request appointments as we passed them in the hallway.

4. **Increasing Opportunities for Student Success**

Speaking to the impacts of the clinic at the school level, the Clinic Coordinator discussed impacts on managing student health to influence student success:

I was approached by a young boy complaining of blurred vision. He was examined by the Nurse Practitioner and it turned out that his blood pressure was high and he was under stress due to examinations and other personal reasons. He was advised to have a follow-up appointment and blood tests completed. This student did not go regularly to his family doctor and if it were not for the school clinic his hypertension might have gone undetected. Since then he has been coming for regular checkups and various treatment options including lifestyle modification and medications.

The NP had also been invited to speak at NACI Career Classes. This was a welcome opportunity to communicate the services provided by NACI’s NP as well as to be a positive adult role model especially for female students:

The students (especially female) would ask questions during their Career Class about how they could become a Nurse Practitioner. They liked the idea of the NP model where many different organizations worked together. I feel that many of these students may not have role models about career planning and don’t know all the possibilities that exist for them.
Indeed, the clinic staff explained that many students were grateful for the clinic’s services and extended their gratitude and appreciation to the clinic staff in person:

*Several grade twelve students stopped by on the last clinic day to say “thank you” to us for the different services they had received in the clinic. They had received care for different issues and also counselling. Even though they were in the middle of exams, they took the time to come by and thank us because we had helped them very much.*
Next Steps

Need to Concentrate Services on an Adolescent Population

The Clinic Coordinator pointed out that primary health care for this adolescent population was different from that of elementary schools. For instance, NACI saw fewer cases for acute or episodic issues or injuries. Instead, future service expansion should target the specific needs of adolescents by providing increased access to counselling services regarding mental and emotional health, sexual health, and other related concerns such as troubled home situations, eating disorders, depression, lack of adult role models, troubled peer relationships, and balancing academic demands with work and family responsibilities.

Both the Clinic Coordinator and NP further noted that tracking the clinic data would continue to be of utmost importance in showing the types of services needed by adolescents. They suggested adding new categories to the ‘presenting issues’ database. For instance, bodily or physical reactions to high levels of stress (such as sleeplessness, anxiety, headaches, digestion, diarrhea, disorganized thoughts) were common; additional categories in the tracking database would help accurately record the causation or connection of these physical symptoms with stress and related mental health issues.

Need for Extended Hours and Group Counselling to Cope with Growing Demands for Service

The NP was booked a week ahead of the clinic day. Although students had not been turned away, the Clinic Coordinator and NP both agreed that ‘filling a second day of appointments at NACI would not be difficult.’ The Clinic Coordinator explained that when they first opened, they could manage the demand, but now that word had spread amongst the students, ‘we are not managing our hours’ with the growing number of students requesting appointments.

The NP also proposed that counselling could be offered in the form of group counselling. She explained that this could serve as

We need to raise awareness about the issues that adolescents from this community are facing. The demand is very high in NACI because students have many problems and cannot see a solution. Some students don’t know who to turn to about their futures or problems right now.

Nurse Practitioner
an effective treatment strategy and also efficiently meet with the increased demands for appointments. At the same time, group counselling could target certain needs that frequently arise among adolescents:

* I would like to bring in a dietician to speak to a group of girls by offering group counselling sessions. We could vary the topics that are discussed week to week. This would help them to speak more openly about their problems and to feel more supported – less isolated.*

**Need to Collaborate to Avoid Duplication of Services**

The NP talked about finding the best way for many services to ‘integrate’ and work together. She suggested looking at other clinic models, even those operating internationally, that had managed to provide multiple services out of one clinic. Partnership development and a keen knowledge of service integration would help to support the NP model while also including the support of other professional services such as social workers.

**Need for the College of Nurse Practitioners to Advocate on Initiatives**

The NP explained that the College for Nurse Practitioners should remain vigilant in its focus on current initiatives by Canadian Nurse Practitioners. This would promote best practices for collaboration in their field. Promotion of Nurse Practitioner initiatives, such as the TDSB’s MSPHI, by the College could lead to increased funding, advocating for marginalized groups, and more influence on health and education policy decisions.
THREE-YEAR PROGRESS OF THE MSPHI (2011-2013)

- Growing Number of MSPHI Clinics
- Growing Number of Feeder Schools Served
- Increase in Clinic Registration
- Increase in the Number of Appointments Served
THREE-YEAR PROGRESS OF THE MSPHI (2011-2013)

Since the opening of the first in-school health clinic in November 2010, the TDSB’s MSPHI as a whole has grown noticeably between 2011 and 2013 in terms of the number of clinics opened, the neighbouring schools supported, the number of students served, and the range of health services provided. These growth patterns were examined based on the 3-year tracking data gathered from the MSPHI central database.

Growing Number of MSPHI Clinics

Over the three school years, two additional clinics were opened in each subsequent year. All MSPHI clinics were housed within the TDSB’s MSIC program – five in elementary schools, and one at a secondary school, NACI. The following map shows the location of the six clinics and the year they were opened.

Figure 7: MSPHI Sites between 2011 and 2013
Growing Number of Feeder Schools Served

While each clinic served the students of its host school, the five elementary school clinics also made their services available to their neighbouring schools. For instance, in the first pilot year (2010-11) the two pioneer clinics were connected to as many as 19 of their surrounding schools. By their third year, these two schools alone covered 28 feeder schools. As shown in Figure 8, in 2011-12 when there were four elementary school clinics, the total number of feeder schools connected was up to 53, and in 2012-13 another 13 schools were added to reach a total of 66 feeder schools supported by five elementary school health clinics.5

Increase in Clinic Registrations

With the growing number of clinics and the associated feeder schools each year, the number of students registered for the service increased by more than fivefold over the three school years from 606 in 2010-11 to nearly 3,300 in 2012-13 (see Figure 9).

5It should be noted that at NACI, due to the great demand for the clinic’s services among the school’s students and the nature of the health care support offered, the secondary-school clinic mainly served the students within its own school.
As illustrated in Figure 10, slightly less than a third (32%) of these registered students were from the host schools, and nearly two-thirds were from their respective feeder schools. There was also a small percentage (4%) of the registrants who were siblings of some of the registered students.

Increase in the Number of Appointments Served

Similarly, with the additional clinics and the growing number of registrants, the total number of appointments served also rose by more than four times from over 280 appointments in 2010-11 to more than 1,200 in 2012-13 (see Figure 11).
Figure 12 shows that for the five elementary school clinics, the largest age groups served were those in the primary grade levels, especially those within Kindergarten and Grades 1-2, followed by Grades 3-4.

For the secondary school clinic at NACI, as discussed in Case Study 3, the largest proportion of students served by the school’s health clinic was those in their graduating year (Grade 12).
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ELS PAEDIATRIC HEALTH INITIATIVE: IN-SCHOOL HEALTH CLINICS
Phase ll Report
OVERALL IMPACTS OF THE MSPHI

1. Equitable Access to Primary Health Care
2. Efficient Referral Pathways for Specialized Services with Other Medical Professionals
3. More Students, Including those with “Suspected” health Issues, can be Supported
4. Provision of and Access to Comprehensive Health Care, Including Preventative and Mental Health Related Services
5. Increasing Opportunities for Student Success
6. Indirect Impact on Families and Communities
7. Cost Effectiveness
OVERALL IMPACTS OF THE MSPHI

Having examined the MSPHI’s growth data and three of the six in-school health clinics at the School Board, this section attempts to sum up the key observable impacts of this school-based integrated service delivery model, especially in terms of its effects for improving the health and educational outcomes for students in high-risk communities. The overall impacts can be articulated in seven interrelated benefits (see Figure 13).

**Figure 13: Seven Interrelated Benefits of In-school Health Clinics**

1. **Equitable Access to Primary Health Care**
   
   With medical personnel housed in the school for at least a day a week, students and their families from inner-city neighbourhoods had immediate and direct access to primary health care.

2. **Efficient referral pathways for specialized services with other medical professionals**
   
   Students and their families could easily access specialized services provided by other medical professionals.

3. **More students, including those with “suspected” health issues, can be supported**
   
   The model supported a wider range of students, including those with suspected health issues.

4. **Provision of and access to comprehensive health care**
   
   The model provided comprehensive health care services to students.

5. **Increasing opportunities for student success**
   
   Improved health outcomes led to increased educational success for students.

6. **Indirect impact on families and communities**
   
   The improved health outcomes had a positive impact on families and communities.

7. **Cost effectiveness as a result of improved educational and health outcomes**
   
   The cost-effective model resulted in improved outcomes for students, families, and communities.
care which would otherwise be unattainable to them due to accessibility barriers mentioned in the Phase I report. For instance, families without health coverage would have to pay the fee-for-service doctor at a health clinic. This is a barrier for many families, especially when parents were confronted between paying the fee and feeding their family.

A single mother with three children came to Canada three years ago as a refugee. She didn’t have any family or friends in Canada, and that the English language was her first barrier to not knowing how systems worked here. The whole family did not have OHIP coverage or a family doctor. At first, every time one of her children was sick, she took them to a walk-in clinic and paid $50 to see a doctor. She did not continue that for long because of her financial situation, and began only treating her children at home when they were sick. She said that she felt very guilty because she couldn’t afford to take them to doctor and felt that they were suffering through each sickness. (Clinic Staff)

As pointed out by a community health centre’s representative:

Choosing between buying groceries or seeing a doctor is a decision no one should make, and is what MSPHI can eliminate.

In fact, a specific indicator of success for the MSPHI was the statistics gathered regarding the number of students who had been “unattached” or “uninsured” and were connected to the health system as a result of the in-school health clinics. “Unattached” refers to students without a primary health care provider such as a family doctor. “Uninsured” are those without proper health coverage, especially among students new to Canada or with refugee claimant status. Through the MSPHI clinics, these students became connected to their clinic’s primary care provider or the associated community health centre. Figure 14 shows that between 2010-2013, as many as 508 students who had either been “unattached” or “uninsured” were finally able to be connected and served under the Ministry of Health.
Apparently, the benefit of equitable access to primary health care was not limited to “uninsured” or “unattached” students. The majority of the MSPHI clinics’ registrants indeed had valid health cards or primary health care providers. Preliminary data collected in 2011-12, however, indicate that even with health coverage or family doctors, many parents from inner-city neighbourhoods did not find it possible to take their children to their family doctors. This could be due to various reasons, such as financial difficulties (which prevent families from paying extra transportation costs for doctor’s appointments), taking time off work, and/or language barriers (which make it difficult for families to navigate the health care and other social support systems). As illustrated in Figure 15, while 19% of the parents from four of the elementary school clinics pointed out that they used the school clinics because they had no family doctors, the rest of the parents found it more convenient or comfortable to bring their children to the school clinic than to their family doctors. Anecdotes collected from these clinics indeed show how grateful the parents were about the immediate and direct health services their children could receive from the school’s clinic, and how “privileged” they felt to have such a service within a school in their neighbourhoods.
2. Efficient Referral Pathways for Specialized Services with Other Medical Professionals

Aside from on-site assessment, diagnosis, and treatment of primary health issues, the MSPHI model has made it possible for students, who had the need, to be referred for specialized services. Working within the school, the clinic’s health provider could focus and monitor individual student’s health more closely, and was thus able to determine more effectively the need for specialist support. Also, through their professional networks and associated institutions such as hospitals, and community health centres, the clinics’ medical personnel could help facilitate the normally complicated referral process, especially for families who face barriers to navigating or accessing the health care system. As explained by a school principal:

*We had a family who were refugee claimants (2 parents and 4 children) attend the clinic. They did not have a family doctor here, and they spoke very little English. ... All the children had multiple concerns and were not doing well at school. Investigations were done and it turned out that they were suffering from anemia due to nutritional deficiencies. They were served at the clinic medically. We also provided them with information about nearby food banks, dietary advice, and connected them to a family doctor at the community health centre. The parents were very happy that their children were being helped in this fashion.*

Clinic Staff

*There is a reciprocal benefit to keeping all the services contained within a school. There are long waiting lists for specialist services. It’s hard for these parents to even get access to a family doctor, but there are many children that also need access to a Developmental Paediatrician, Occupational Therapist, Speech-Language Therapist... Having all the services available at one place opens communication between all*
professionals and eliminates the waiting. It is very difficult to connect externally and can take weeks for myself [as principal], involved with the child’s education, to connect with an external service agency that is involved with the child’s physical or mental health. The clinic can provide this care in one place with other community partners and professionals involved.

3. More Students, Including those with “Suspected” Health Issues, can be Supported

With a health clinic housed inside a school setting, school principals, teachers, or other staff were more prone to refer students whom they detected or believed to have health related symptoms to the school clinic. Some of these symptoms might have manifested as behavioural difficulties in class.

A child was referred by a school for bad behavior, as he was disruptive and not paying attention in class. When contacted, the mother was reluctant to come to the clinic and kept mentioning that it was the school’s fault. She was persuaded by the school to attend an appointment... It was decided that the child was having a learning disorder and his behavior was because he couldn’t understand what was going on in class. The school expedited a psycho-educational assessment and provided additional supports to the student based on the doctor’s recommendations. The mother was very happy and left expressing her gratitude. (Clinic Staff)

In one of the clinics, the medical personnel attended some of the School Team Meetings in the host and neighbouring schools, where staff discussed potential cases for referrals. According to the preliminary data gathered from the four elementary school clinics in 2011-2012, while nearly half (47%) of the appointments were made directly by parents or family members, an almost equal proportion (46%) of the appointments were made through the advice of school support team staff, principals, and teachers (see Figure 16).
It was also found in the case studies that parents, especially recent immigrants, were more receptive to referrals and suggestions made by school staff. These parents tended to have greater trust in the school staff who spent the most time with their children. According to Clinic Coordinators, this was one of the impressive results of the MSPHI, as teachers came to speak with the medical professionals at the school’s health clinic regularly. As such, health care providers and school staff could work collaboratively for the well-being of the students. As observed by a school principal:

*Especially for students with complex issues, many are becoming clients of the clinic because the communication for all involved with that child’s health is much easier. Our clinic is that connection between the child’s school experiences and their health issues.*

4. **Provision of and Access to Comprehensive Health Care, Including Preventative and Mental Health Related Services**

The three case studies and the MSPHI data records reveal that the types and range of health issues addressed by MSPHI clinics have been beyond the primary health care services initially anticipated. As shown in Figure 17, between 2010 and 2013 over 2,800 presenting issues were recorded. Of these presenting issues:

- over half (52%) were physical ailments such as acute\(^6\) and chronic\(^7\) illnesses, injuries;
- a significant proportion (22%) were with preventative care such as vaccination, immunization, physical examinations, health promotion and education; and

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\(^6\) Some of the examples include colds, viruses, headaches, stomach-aches, digestion, and feeding issues.

\(^7\) These illnesses include, for example, diabetes, asthma, and allergies.
• over a quarter of the presenting issues were related to students’ mental health issues – including developmental and behavioural issues, learning difficulties, and emotional well-being.

Regarding the last category, clinic staff noticed that mental health concerns were unexpectedly high. All three case studies reveal that although some students visited the clinic with a presenting issue related to physical ailment, such as a stomachache, their symptoms often stemmed from mental or emotional health challenges such as anxiety or depression, which the students themselves might not be fully aware of. Hence, the percentage recorded under this category could be under-reported.

![Figure 17: Presenting Health Issues (2011-12)](image)

In any event, the wide spectrum of health services offered directly or indirectly through the in-school clinics benefited students through early detection, timely interventions, and long-term prevention for their physical and mental health.

As a new immigrant, a student did not have a valid health card and after a full examination by the family doctor at our clinic, it was determined that the child was deaf and therefore had some behavioural issues. He was referred to the audiology department at the hospital, where the specialist prescribed a hearing aid for now and a cochlea implant in the future. The specialist and audiologist also recommended that the child be put in a special class at school. He has been put on a waiting list for the surgery while the child has been placed in a special class by the school as recommended, and has shown significant improvement. Both parents and teachers have come to express their profound thanks to the clinic. (Clinic Staff)
5. Increasing Opportunities for Student Success

Physical illnesses or mental health related problems can go undiagnosed, distracting students from learning in class or keeping them out of school. As shared by a Nurse Practitioner in one of the clinics,

*Any sort of ailment can keep a child from learning in the classroom; for example, children are sitting in class with tooth decay and it’s painful. They cannot concentrate. Vision problems can cause headaches and they will have trouble reading or paying attention. Children that have sleep issues, because they are itchy from bed bugs will also be affected in class.*

As a result of the MSPHI – with equitable access to primary health care, efficient referrals to specialized services, early detection with the involvement of school staff, and the wide spectrum of health care provisions, many health-related obstacles to students’ successful school experience can be mitigated.

*A Grade 5 boy began disrupting classes, berating other students and engaging in fights. A school Vice-Principal referred the boy and his family to an in-school clinic doctor. He was then referred for mental health therapy where it was discovered that language-learning barriers were causing him stress that resulted in his misbehaviour. With the help of mental health professionals, his teachers, and his family, this young boy is now learning how to communicate and beginning to do much better in school.* (Clinic Staff)

Furthermore, through the in-school health clinics, students were arranged to have their immunization done, thus avoiding days of suspension from school (as stipulated by the Ontario public health and public education policies) due to missing vaccinations. Most students in these schools live in poverty, and education is their chance to succeed; minimizing their time away from class and reducing absenteeism gives them a greater opportunity for success.

*A family of three children was booked for immunization updates because they had received suspension notices for inadequate immunization. At first, they were told to start immunization from scratch because they had no records, but the IMG Coordinator was able to obtain their immunization records from their previous home and found that they only required relatively few vaccines to update their status and as a result, prevented school suspension.* (Clinic Staff)
6. Indirect Impact on Families and Communities

MSPHI had a ripple effect on communities by reaching out to families through the students. Admitting “unattached” and “uninsured” students gave clinics the opportunity to address familial health issues and extend the primary health care services to parents and younger siblings, connecting them to the associated community health centre. It was highlighted earlier that over the past three years, the clinics had addressed the health issues of over 500 students who had either been “unattached” or “uninsured”. If their family members were included, an estimate of between 1,500 to 2,000 people had potentially been “attached” to the health system.

> Through the school teacher, [a refugee mother] found out about our clinic and contacted us. For the first time in two years, her children all saw a doctor and had a general physical. ... This mother was so happy, and with tears filling her eyes, she said “Thank You!” She, herself, had been referred to the Scarborough Centre for Healthy Communities, where [the clinic’s doctor] will now become her primary care provider who she can begin to see regularly at the main site of SCHC for her own health care. (Clinic Staff)

Aside from being connected to the health care system, many new immigrant families were able to get help with their settlement or language issues through the support of the bilingual Clinic Coordinators and the newcomer services offered by the community health centres that they eventually attached to. Furthermore, it should be reminded that students’ improvement in health and well-being by itself was a great relief and benefit for the families, especially for those who were already faced with various barriers such as financial, social, language, and settlement issues.

> A single father with his three children came for the flu shot. They were in difficult circumstances, living at a shelter. While administering the flu shot, the family doctor felt that the children should have a check-up for developmental assessments. Two of the children were eventually identified as having developmental disabilities but because they didn’t have health cards, and faced financial barriers, they were concerned about receiving healthcare.
We put the father in touch with the main site of Scarborough Centre for Healthy Communities. The father now also has healthcare and the family was also able to obtain some financial assistance for travel. The father ... was very grateful for all the help. He also mentioned the children are doing much better after starting the treatment. Without the clinic, he wouldn’t have found this help. (Clinic Staff)

7. Cost Effectiveness

The cost benefit of the MSPHI is apparent as the findings reveal how a relatively small investment in setting up (around $7,000-$10,000)\textsuperscript{8} and maintaining (approximately $30,000 annually)\textsuperscript{9} an in-school health clinic has impacted, as discussed earlier, the health outcome for a significant number of students as well as their families in priority neighbourhoods. Such cost effectiveness should also be viewed from long-term perspectives. While these students would have a better chance of educational success, health care expenditures can at the same time be saved in the long run with early detection, interventions, prevention, and health promotion – all of which help reduce higher health risks and associated medical and social costs down the road.

\textsuperscript{8} This includes the setup costs for equipment and for converting a classroom into a clinic, maintenance costs for the space, as well as the costs for supplies and printing.

\textsuperscript{9} This is an average annual cost for a part-time Clinic Co-ordinator to operate and support an in-school clinic.
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MEDICAL TOOLS PAEDIATRIC HEALTH INITIATIVE: IN-SCHOOL HEALTH CLINICS

Phase II Report
CONDITIONS FOR SUCCESS AND SUSTAINABILITY

1. Availability of Suitable School Sites
2. Availability of Medical Service Providers
3. Clinic Coordinators
4. Central Coordination and Support
5. Support from School Administrators and Staff
6. Ongoing Research and Evaluation
7. Sustainable Funding and Support
CONDITIONS FOR SUCCESS AND SUSTAINABILITY

Having assessed the overall benefits of the MSPHI, this last section discusses the conditions required to ensure its success and sustainability. There are seven conditions to be considered.

1. Availability of Suitable School Sites

The research to date indicates that having a suitable school site is important to ensure full utilization of the clinic. The criteria for site selection should at least include the consideration of location and space.

- Location – The Phase I and II research demonstrates that in-school health clinics would benefit priority communities the most, where families are more likely to experience accessibility barriers to health care services. These challenges, as mentioned earlier, are more likely to be faced by students in inner-city neighbourhoods, where there are higher percentages of recent immigrants, refugees, or low-income families. Hence, the needs and the level of available services within a community are important determining factors for selecting appropriate school sites for the MSPHI.

- Shared Space – Another site selection criterion is whether the school has a space to share for housing an in-school health clinic. This shared space, for example an extra classroom, needs to be converted into a simple clinic with basic office furniture and clinic requirements such as a partition for the examination area, and a patient’s table.

2. Availability of Medical Service Providers

One of the major pillars of the MSPHI is the support of health care delivery agencies, such as nearby hospitals or community health centres. These agencies provide health care professionals as well as medical supplies such as vaccinations. Hence, another key condition for the success of the MSPHI is the availability of health care partners that are interested in an integrated service delivery initiative, and are willing to delegate their medical staff to work at the school site on a weekly basis. In Sprucecourt Public School, the clinic was supported by a paediatrician and family doctors associated with St. Michael’s Hospital. The clinic at George
Webster Elementary School was supported by a nurse practitioner from Access Alliance Multicultural Health and Community Services, and a paediatrician from Toronto East General Hospital. In North Albion Collegiate Institute, a nurse practitioner was assigned from Rexdale Community Health Clinic to serve the school’s health clinic.

In addition, these health care partners, as discussed earlier, can help facilitate the provision of specialized services - such as developmental paediatricians, mental health professionals, or related counsellors - at the school clinics or at the specialists’ sites of practice. These referral services have been a significant enhancement for the MSPHI.

3. Clinic Coordinators

It is also evident in the three case studies that Clinic Coordinators are instrumental in ensuring the effectiveness of their assigned clinic. First, they play a key role in aligning clinic operations – for example, students’ clinic registrations, appointments booking, coordinating health providers’ schedules and specialist referrals, and updating and maintaining their patients’ data files. Second, they are responsible for outreaching and promoting the clinic services to parents, the community, and neighbouring schools. Third, they act as a bridge, liaising and facilitating effective communications between the school staff and medical partners. Additionally, they are the MSPHI “ambassadors”. For instance, they assure the clinics’ atmosphere is welcoming and culturally-sensitive so that students and/or parents will have a positive experience with clinic service. They also offer language support for families who need assistance in understanding health care providers’ instructions, in applying for health care insurance, or in navigating the health care system. In short, Clinic Coordinators’ services had been critical in spreading awareness and creating an image of approachability for schools, families, and communities. In fact, the growing demands for MSPHI services at different school
sites or communities could be attributed largely to the outreach, promotion and public relations efforts of the Clinic Coordinators.

To ensure Clinic Coordinators are effective in their multiple roles described above, International Medical Graduates (IMGs) have been recruited. The medical knowledge and expertise they bring to each clinic, along with their bilingual skills, have been valuable in ensuring effective operations of the clinics, and in maintaining trust and relationships among the different stakeholders – students, parents, school staff, and health care providers. At the same time, the recruitment of IMGs helps tackle the issue of foreign trained professionals, who are unable to secure work in a Canadian medical field because they require experience that will support their progress towards accreditation, particularly when applying for residencies. According to the MSPHI central office, a number of these IMGs have secured positions in their respective fields over the past three years.

4. Central Coordination and Support

Since its inception, the MSPHI has had its central office under the TFSS. The latter was responsible for raising funds for the initiative, securing commitments for the medical staffing, and overseeing with the School Board all the operational requirements including business planning, promotion, reporting, program management, hiring, and managing a central patient database for all the clinics. With multiple sites, as well as a growing number of neighbouring schools served, and a range of community health partners involved, this central coordination and support is essential.

5. Support from School Administrators and Staff

Again findings from the case studies indicate that support from school administrators can help determine the level of success of their in-school health clinics. For instance, a principal at one site invited the Clinic Coordinator to school events such as parent-teacher nights to help the community feel comfortable and welcomed in this new initiative. Principals also played an active role in promoting their clinics to neighbouring schools. At another site, school principals from the host and feeder schools welcomed the request from one of the clinics’ health care
providers to attend their School Team Meetings to discuss and refer potentially at-risk students for clinic treatments.

Aside from school administrators, other school staff, such as classroom teachers, have been an excellent resource for clinic referrals. It was found in this research that referrals made for their child by teachers, particularly regarding behavioural issues, were more accepted by parents as they were more comfortable and trusting of the child’s school than with the health care system which was unfamiliar or intimidating to them.

For secondary school students, in the NACI case study, referrals by the guidance office or even an introduction of an adolescent to clinic staff by a guidance counsellor had allowed more students in need to receive timely and proper care.

Recently I [clinic coordinator] was approached by a guidance counsellor at NACI, looking for an appointment for a student, who was having trouble with his vision. He was a refugee claimant who had recently moved to Canada and did not have any health coverage. When our Nurse Practitioner examined him, it was found that his vision was very poor. He was referred to an ophthalmologist. As the family could not afford the cost of the consultation, Rexdale Community Health Centre agreed to bear it. The guidance counsellor accompanied him to the appointment. It was found that he was suffering from a serious condition of the cornea called Keratoconus. The ophthalmologist informed them that if a surgical procedure was not performed soon, then he would go blind. The cost of the procedure for each eye was $3000! The family was informed and they were initially upset, but later talked with the counsellor and explained that there was no way they could afford such a cost. We called different places and found a place that was willing to perform the procedure on one eye for free! The cost of the other eye will be covered by the CHC. It was a complex procedure involving 6 sessions. Thanks to timely identification, his eyesight was now saved. (Clinic Coordinator)

6. Ongoing Research and Evaluation

Since the MSPHI as a school-based integrated health service delivery model is relatively new in Ontario, much has yet to be learned about its implementation process, delivery models, challenges, outcomes, and impacts. In 2011-12, with funding support from the Ministry of Education, a formal multi-phase research plan was established with a two-fold purpose -
formative evaluation to inform practice on an ongoing basis, and summative evaluation to determine immediate and long-term impacts. These research and evaluation endeavours have been instrumental not only for identifying areas of needs for ongoing program improvement, but also for securing the funds and support necessary to sustain and expand the program. Furthermore, it provides evidential information for other communities or regions to consider implementation.

7. Sustainable Funding and Support

All interviewed participants expressed the paramount importance of securing adequate and long-term funding from the government and community partners to support the MSPHI’s goal of sustainability. Indeed, due to growing demands, all three case studies point to the need for extended hours of operation beyond the current limited hours\textsuperscript{10} of weekly service, and to provide same-day services to students rather than asking them to return a week later. As a Clinic Coordinator put it, “What message are we sending out when we have to turn children away?” This entails an appeal for increased funding.

Literature from other jurisdictions, quoted in the Phase I study, consistently points out that successful school-based health clinics require sustainable funding from more than one source or one government ministry. Recognizing the undeniable link between children’s health and education outcome, all stakeholder groups have called for a collaborative funding model among the Ministry of Education, the Ministry of Health, and the Ministry of Citizenship and Immigration, and across all levels of government – municipal, provincial, and federal (Langille, 2006). Finally, one should be reminded of the cost effectiveness of this in-school integrated service delivery health model. Not only does it help improve the chance of success for children in high-needs communities, but it can also result in significant long-term savings for the health care and social service systems.

\textsuperscript{10} Depending on the hours and types of health care services each community partner can offer to its associated in-school clinic, the operating hours for the different clinics can vary from five to 18 hours per week.
REFERENCES


