MODEL SCHOOLS PAEDIATRIC HEALTH INITIATIVE: IN-SCHOOL HEALTH CLINICS

PHASE IV: SUMMATIVE EVALUATION

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CHAPTER 1: INTRODUCTION

- Background
- Focus of this Study
- Data Collection Methods

CHAPTER 1: INTRODUCTION

BACKGROUND

This is the Phase IV Evaluation of the Toronto District School Board's (TDSB) Model Schools Paediatric Health Initiative (MSPHI). As part of the TDSB's Model Schools for Inner Cities (MSIC) program, this initiative was piloted in the fall of 2010 with the opening of the very first two in-school health clinics in MSIC elementary schools. The following two years witnessed the expansion of the MSPHI by a few more schools in different parts of the city, one of which was located in a secondary school. In 2015-16, three more in-school health clinics were established in other MSIC schools.

The objective of the MSPHI is to provide innovative, integrated, in-school health care to students in priority neighbourhoods. In partnership with local health agencies, comprehensive medical services including assessment, diagnosis, management, and follow-up are provided. The intent is to eliminate barriers to accessible and high quality health care in low-income communities so that the health needs of inner-city students can be met and their educational trajectories can be improved.

With research funding support from the Ministry of Education, a four-phase evaluation plan was proposed, and the first three phases were completed as follows:

- Phase I Evaluation (2011-12) was a retrospective assessment of the first pilot year of the initiative. The report (Yau & Newton, 2012) included a literature review, documentation of the origin of the MSPHI, and case studies on the first two TDSB's in-school health clinics - Sprucecourt Public School and George Webster Elementary School.

- Phase II Evaluation (2012-13) took a micro and macro look at the MSPHI. The report consists of a third case study on the new and only secondary school health clinic located at North Albion Collegiate Institute (NACI), a review of the three-year progress and the overall impact of the MSPHI as a whole, as well as a discussion about conditions for MSPHI's success and sustainability.

- Phase III Evaluation (2013-14) was two detailed case studies of two relatively recent MSPHI health clinics at Willow Park Junior Public School and NACI. In this study, the importance and impact of the MSPHI for students of host and feeder schools as well as the community was explored. In addition, the contributions of this integrated school and health initiative to addressing students' psychological health and supporting the TDSB's *Children and Youth Mental Health and Well-being Strategy* (2013) were considered.

FOCUS OF THIS STUDY

The focus of this current Phase IV Evaluation is to provide a summative examination of the MSPHI as a whole and its evolvement during the past few years. Building on the cumulative findings from the three previous phases of evaluation, along with the greater breadth and depth of data collection in this round of study, an attempt is made to explore the following research questions:

1. What were the determinants of health (e.g., social, financial, environmental) facing inner-city students in Toronto?
2. How has the MSPHI evolved – in terms of its structure, key components, service delivery models, operations, usage, and clientele?
3. What were the added values of the MSPHI over the conventional health care services that were afforded to inner-city students?
4. What were the overall benefits inner-city students could gain from the MSPHI?
5. What were the ripple effects of the MSPHI on schools and families?
6. What was the cost-effectiveness of the MSPHI?
7. What were the conditions for MSPHI effectiveness?

By answering the above questions, this study attempts to provide a comprehensive understanding of the MSPHI as an alternative integrated service delivery model to address the health needs of vulnerable student populations with implications for their education success. It is also hoped that the detailed descriptions and findings of this report, along with the case studies in the previous phases of reports, will offer some key messages, implementation strategies and references for service providers who may consider adopting or adapting this strategy for their jurisdictions or communities.

DATA COLLECTION METHODS

For this current comprehensive study, ongoing data gathered collectively from the four established MSPHI sites and their feeder schools were used to inform the findings. These four sites, which have been investigated in earlier phases of this multi-year evaluation, include Sprucecourt Public School, George Webster Elementary School, Willow Park Junior Public School, and North Albion Collegiate Institute. As in previous studies, a mixed data collection method was employed to gather information from both quantitative and qualitative sources.

Quantitative Data

Two existing quantitative data sources maintained by the TDSB were leveraged for this study.

- *TDSB's 2011 Student Census* - Information about the demographics and out-of-school experiences of students in the MSPHI catchment areas was captured to help understand the needs and conditions of students in those neighbourhoods.

- *MSPHI database* - This database, maintained centrally, monitors student registrations, appointments, feeder schools, and presenting health issues for all TDSB in-school health clinics. For this Phase IV Evaluation, data related to the four clinics under study were extracted.

Qualitative Data

Due to the nature of the subject matter under study, the bulk of data for this multi-phase evaluation were derived essentially from qualitative sources. Aside from secondary research information gleaned from existing literature, the majority of the findings of this evaluation were informed by the voluminous amount of qualitative data collected firsthand from various stakeholder groups either via individual interviews or focus groups.

As shown in Table 1**,** during the earlier phases of this evaluation, the informants were mostly staff members who were directly involved in their respective in-school health clinic (e.g., health care providers, clinic co-ordinators, health care agencies[1], MSPHI central staff, and school administrators). In the last, and especially the current research, voices from a wider representation of stakeholder groups were also captured, including a sample of elementary school students in one of the host schools, secondary school students who had received services from their school's health clinic, parents and/or caregivers who accompanied their child(ren) to the MSPHI clinic, teachers and other school staff from the host schools, as well as

[1] They included Rexdale Community Health Centre, Access Alliance, and Unison Health and Community Services.

TDSB central staff. Combining all the individuals interviewed over the four years of research, as many as 150 informants from different stakeholder groups were represented. The idea was to obtain a full 360-degree perspective of the MSPHI from all angles - for example, service providers, supporters, and the recipients themselves.

Table 1: Phase I to IV Sources of Data

	Phase I	Phase II	Phase III	Phase IV
Health Care Providers	✓	✓	4	11
Clinic Co-ordinators	✓	✓	2	3
Health Agency Staff	✓		4	5
MSPHI Central Staff	✓	✓		1
TDSB Central Staff			3	4
School Administrators	✓		2	9
Teachers			2	11
Parents and Caregivers			3	36
Students			12	30
Total			**32**	**110**

CHAPTER 2: CONTEXTS – DETERMINANTS OF HEALTH

- Student Demographics
- Home and Community Conditions
- Student Health-Related Needs
- Accessibility Barriers to Health Care

CHAPTER 2: CONTEXTS – DETERMINANTS OF HEALTH

All MSPHI in-school health clinics were strategically located in high-needs communities (see Figure 1). The TDSB's *2011-12 Student and Parent Census* indicates that the demographic characteristics of students in these communities were distinct from those in more affluent neighbourhoods. Qualitative data captured from various stakeholder groups further reveal that many of these students faced multiple predicaments in terms of challenging family and community circumstances, health-related concerns, and accessibility to health care services. As discussed at greater length in the following sections, these were social and environmental determinants affecting the health and well-being of inner-city students, and thus compromising their short- and long-term academic success.

Figure 1: MSPHI Sites between 2011 and 2016

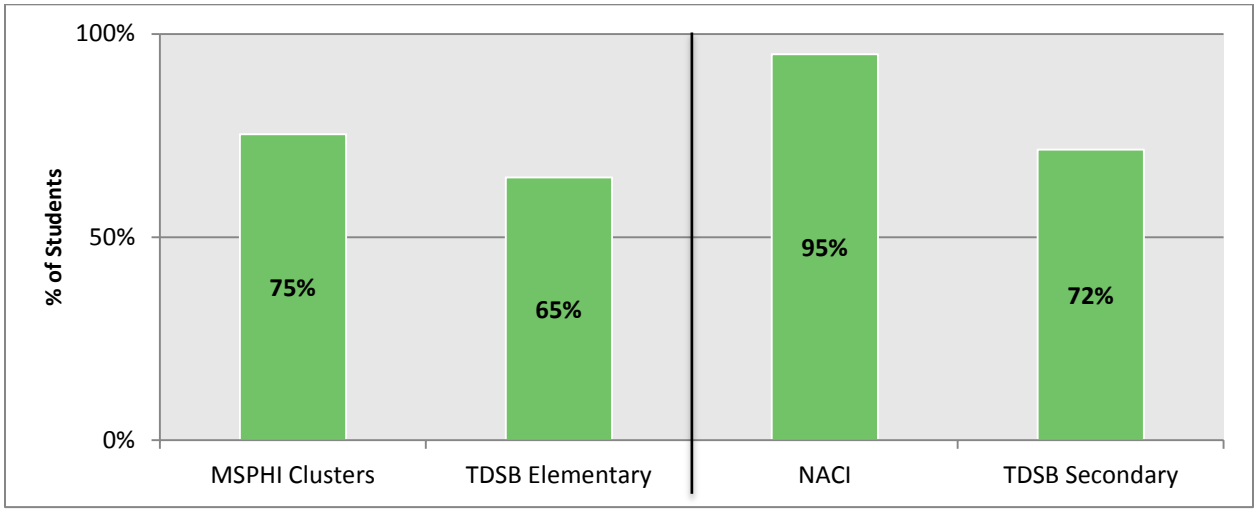
STUDENT DEMOGRAPHICS

Immigrant and Cultural Backgrounds

The large majority of students in the neighbourhoods served by the four MSPHI clinics were from families facing poverty and settlement-related challenges. According to the TDSB's *2011-12 Student and Parent Census*, as many as three quarters of the students from the clusters of schools around the three elementary MSPHI clinics had both of their parents born outside of Canada – a proportion higher than that for elementary school students across the whole school board (75% versus 65%). For North Albion Collegiate Institute (NACI), the proportion of parents

born outside of Canada was even higher, relative to the overall TDSB secondary school student population – 95% versus 72% (see Figure 2).

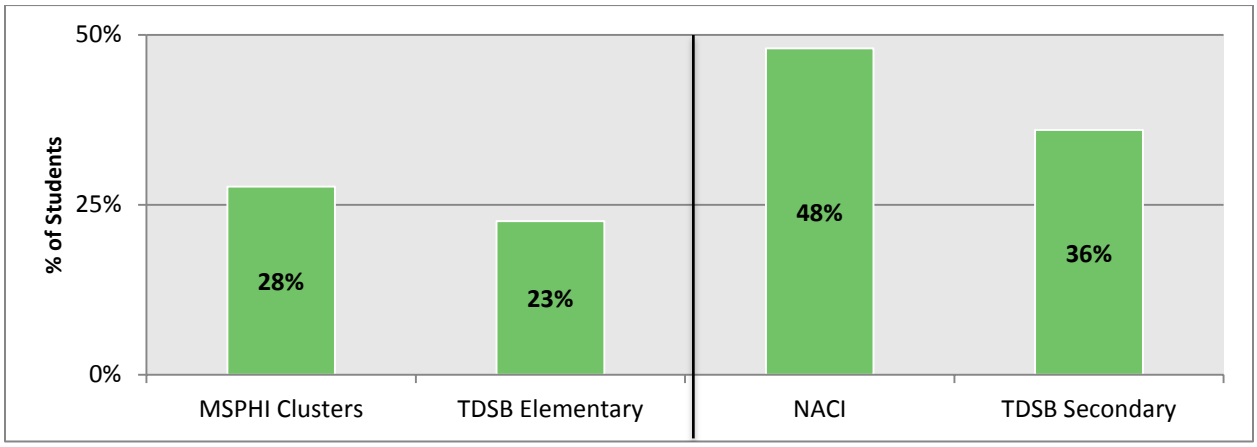
Figure 2: Students with Both Parents Born Outside Canada, 2011-12



Source: TDSB's 2011-12 Student & Parent Census

In terms of student country of birth, more students from these neighbourhoods were born outside of Canada compared to the overall elementary school population (28% versus 23%), and likewise with NACI versus the TDSB secondary population (48% versus 36%) (see Figure 3).

Figure 3: Students Born Outside of Canada, 2011-12

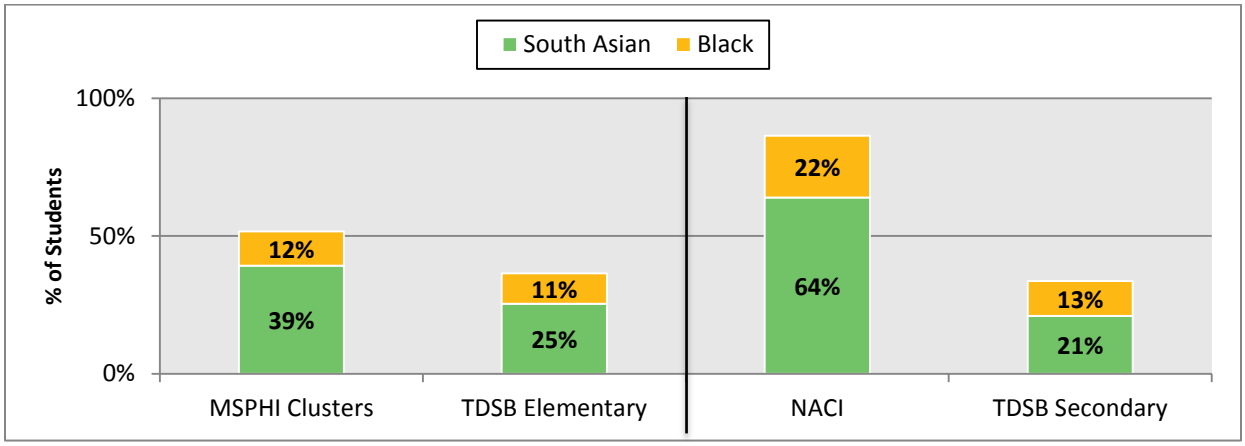


Source: TDSB's 2011-12 Student & Parent Census

Aside from immigrant families, there was also a small proportion of refugee or non-status families arriving in Canada as refugee claimants.

Regarding ethno-racial backgrounds, these communities had a higher representation of students who identified themselves as South Asian or Black compared to the overall student population in the city (see Figure 4).

Figure 4: Students' Ethno-racial Backgrounds, 2011-12

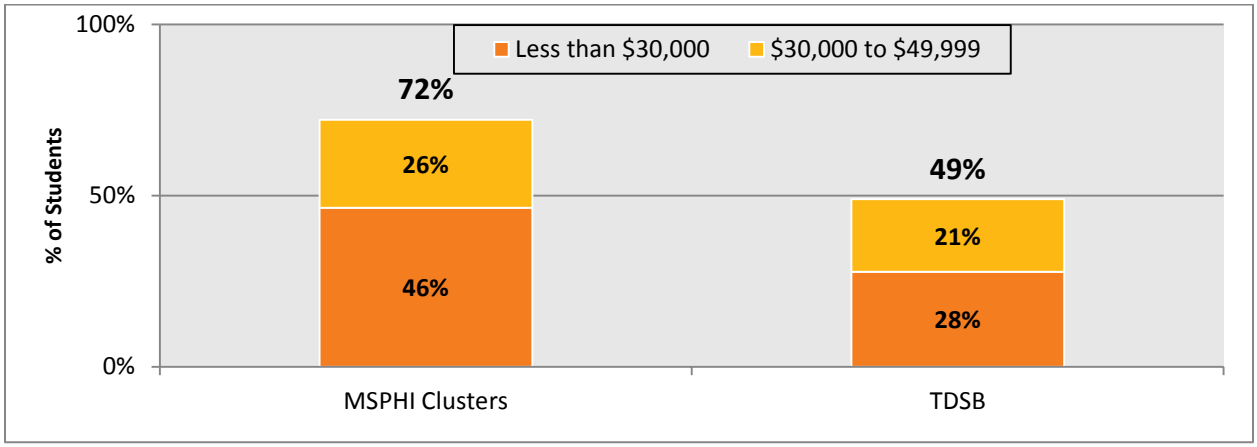


Source: TDSB's 2011-12 Student & Parent Census

Family Socio-economic Status (SES)

Based on the TDSB's *2011-12 Parent Census*, nearly three quarters (72%) of the students who lived in the neighbourhoods around the three elementary school health clinics were from the two lowest income bracket groups; most indeed lived below an average household income of $30,000 (see Figure 5).

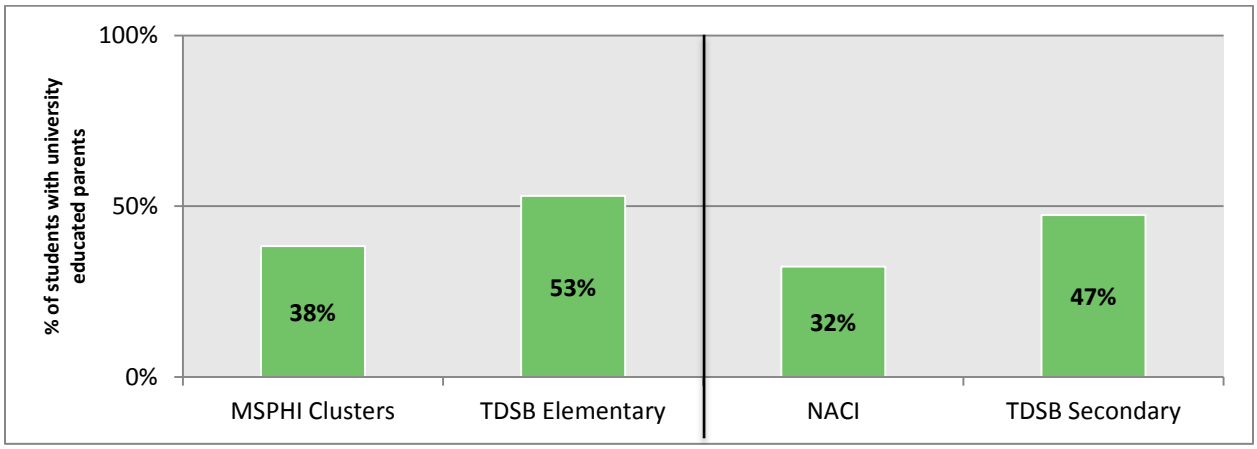
Figure 5: Low-income Households, JK-Grade 6, 2011-12



Source: TDSB's 2011-12 Parent Census

These neighbourhoods also had a lower percentage of parents with a university degree than that of the system as a whole at the elementary (38% versus 53 %) and secondary school levels (32% versus 47%) (see Figure 6).

Figure 6: Parent Education, 2011-12



Source: TDSB's 2011-12 Student & Parent Census

HOME AND COMMUNITY CONDITIONS

The quantitative findings regarding the aforementioned settlement, cultural, and socio-economic challenges that many families encountered in these high priority neighbourhoods could be corroborated by the qualitative data gleaned from different stakeholders' focus groups. For instance, it was learned through interview testimonies that there were students who lived in crowded and unfavourable living conditions (e.g., bed bugs and other pests). There were also cases where students underwent emotionally challenging situations with family members such as parents' marital or relational conflicts, domestic violence, mental health issues, or substance abuse. As observed by a social worker:

> *The situations were really long standing problems in the family, huge parenting issues, huge historical family problems and trauma, parental mental health issues, parental drug abuse, quality of parenting … like pretty significant things, that would have impacted the child's whole development.* (Social Worker)

Some educators described their students with poor self-regulation and disruptive behaviour among other psychological health concerns that could be attributed to the limited parental support at home. The latter was discussed by the clinic staff as a large determinant of children acting in an unfavourable emotional manner during school - for example, crying, tossing chairs, or smashing doors. Teachers and administrative staff at some schools reported cases of students fleeing the school premises as a reaction to getting upset. In extreme circumstances,

police were involved in order to return the children back to school. This occurred most often in Kindergarten.

> *What happens to a lot of young ones, runners, they call them 'runners.' They would run away from school so I mean 4 or 5 years old.* (School Administrator)

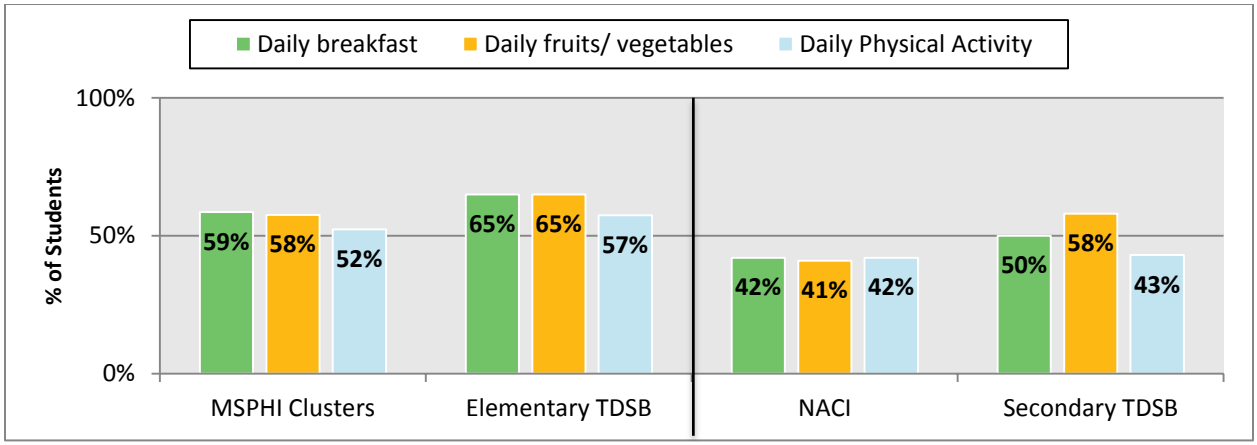
Community Safety

Another challenge was community safety. Past and present stakeholder groups expressed their concerns regarding the exposure levels to recurring violence in the surrounding school neighbourhoods. Students nonchalantly told their school administrators that they frequently witnessed drug use and distribution in apartment lobbies, bullet holes in building elevators, or blood stains in apartment hallways. Students seemed to have become immune to these violent and criminal activities and described it as "everyday living". The school was the only safe haven for many of these students. In fact, according to the TDSB's *2011-12 Parent Census*, fewer parents in these neighbourhoods reported that their children often felt safe on their street than their counterparts from other communities (80% versus 87%).

Lifestyle Habits

Based on the TDSB's *2011-12 Student Census*, adolescents from these communities were less likely than the general population to eat breakfast or fruits and/or vegetables daily, or to take part in daily physical activity (see Figure 7).

Figure 7: Eating Habits and Physical Activity



Source: TDSB's 2011-12 Student Census

STUDENT HEALTH-RELATED NEEDS

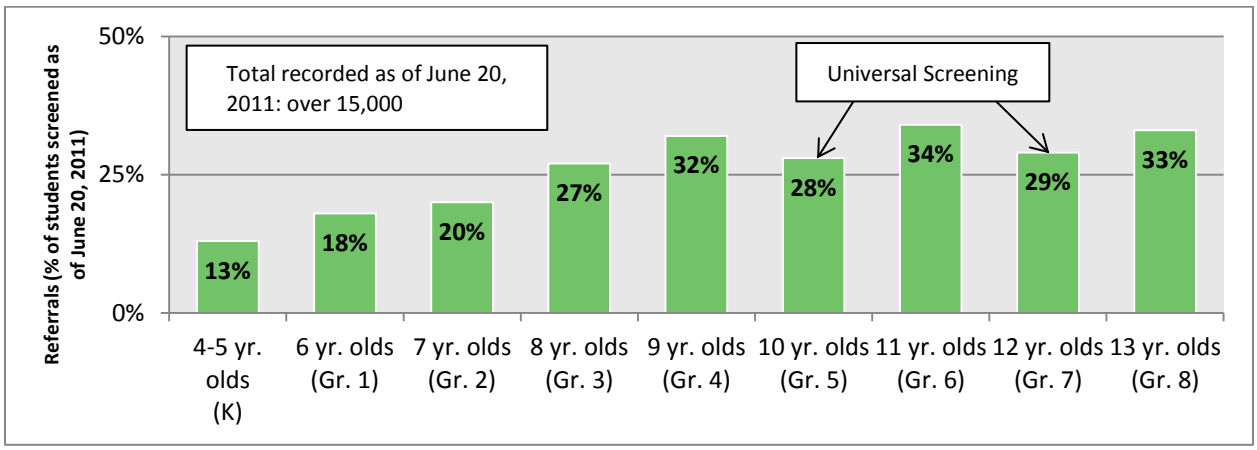
Research has revealed an indirect relationship between physical and psychosocial health and educational inequities. That is, as health inequities increase, academic achievement declines and vice versa (Fiscella and Kitzman, 2009). Hence, it is crucial to understand the health-related needs of the students. Interviews with different stakeholder groups have helped elaborate and contextualize the health needs and concerns of students from high-needs communities. Based on the presenting issues reported at each of the MSPHI site, the health-related needs of both elementary and secondary school students are described in the following sections according to three broad categories:

- Physical health needs
- Mental health needs
- Lifestyle health concerns

Physical Health Needs

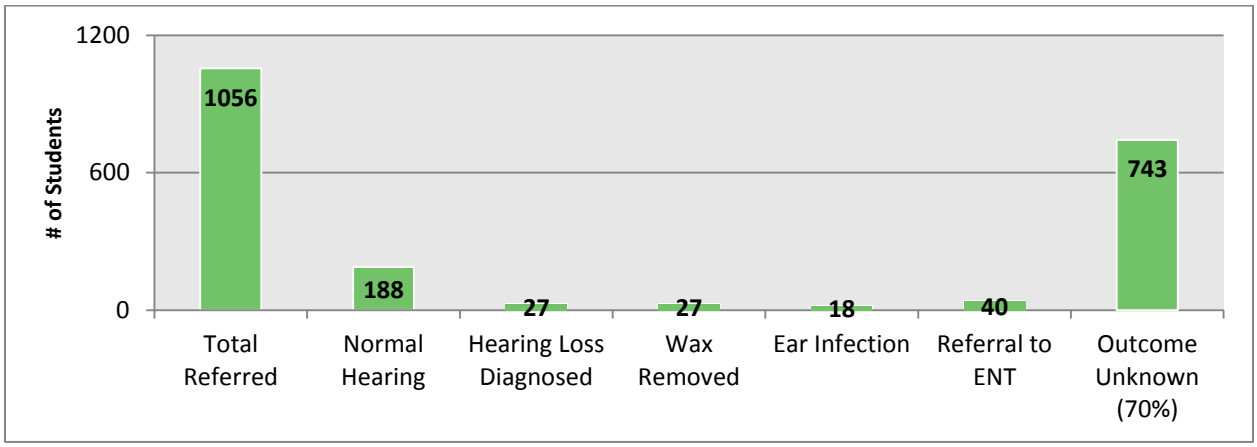
Vision and hearing have always been identified by the MSIC program as pervasive physical health concerns for its students. Hence, even before the establishment of the MSPHI, yearly vision and auditory assessments have been conducted at all MSIC schools since 2007-08. Over the early years of the vision assessments, it was found that at least a quarter of the inner-city children assessed had vision problems (Yau, 2011). In fact, as illustrated in Figure 8, in 2010-11 when the students in Grades 5 and 7 across all MSIC schools were universally screened for vision, the results showed that 28-29% of students required referrals. This means that more than 1 in 4 of these Grade 5 and 7 students had vision problems that had gone undetected.

Figure 8: MSIC Vision Test: Referrals by Age (2010-11)



Regarding auditory assessments, 10-16% of the children screened were detected with hearing problems, requiring referrals for corrective measures, or additional medical follow-ups (Yau, 2011). This assessment result could be corroborated by several testimonial cases which indicated the frequency and severity of hearing problems and ear infections exhibited by students. On rare occasions, students required specialized ophthalmology and audiology care and complex surgeries. While these findings were quite shocking, it was more astonishing to learn from the database tracking records that among the students whose parents were notified about their child's requirement for further auditory check-ups, as high as 70% of the referrals had never been followed through (see Figure 9). It was found that in many instances the reasons had to do with the multiple accessibility barriers faced by many low-income families to health care. Indeed, it was this very observation that prompted the inception of the MSPHI at the TDSB.

Figure 9: MSIC Hearing Referral Results (2009-10)



Source: MSIC Vision and Hearing Data

According to the MSPHI database, other common physical health issues was related to episodic ailments – such as headaches, dizziness, rashes, hypertension, hair loss, back pain, throat infections, general pain, vomiting, fevers, colds, and allergies. Communicable diseases were additional health concerns regularly encountered among the student population, especially at the elementary school level. Some clinics reported instances of ring worm, bed bugs and lice.

> *It is a range. It can be anything from things like a cold, eye infection, an ear infection, or a sinus infection; so small acute issues, but easily dealt with, ranging through to issues that might be around nutrition.*
> (Health Care Agency)

I had a student with marks, bites all over her so they were trying to figure out if they were bed bugs or things like that so the doctors were examining her and trying to help inform the family they could have bed bugs in

the home and try to help her figure out how to alleviate that. She would swell up. I guess she was allergic to it. (Teacher)

Cases involving physical injuries were also reported occasionally. In elementary schools, physical injuries came about during recess and ranged in severity from minor injuries requiring ice and bandages, to broken limbs. At the secondary school level, physical injuries were mostly related to gym and extra-curricular sports activities, including sprained ankles and concussions.

Mental Health Needs

Mental health was identified by all stakeholders as the most prominent student health concern for both the elementary and the secondary school panels. Student mental health issues can be grouped under three major types: behavioural, developmental, and emotional.

Behavioural Issues

At the elementary school level, students with behavioural issues were characterized as agitated, disruptive, and sometimes violent towards fellow classmates. Behavioural outbursts were often triggered over trivial reasons: from a verbal disagreement with a classmate to classroom frustrations with a teacher. In extreme cases, some of these young students ran off from the school grounds as a result of their inability to self-regulate, leading to the involvement of their parents and even law enforcement. The continual expression of these characteristics often necessitated professional medical assistance for behavioural disorders such as Attention Deficit Hyperactivity Disorder (ADHD). At the secondary school level, challenges ranged from non-verbal behaviours to authority defiance. At both school levels, several cases of inappropriate behaviours were observed, including spitting, kicking, and swearing.

Developmental Issues

Across all stakeholder groups involved with the clinic, the most discussed developmental issue observed among students revolved around their engagement with their learning and schoolwork. Namely, students experienced difficulties paying attention in the classroom and lacked focus in their schoolwork. School staff, clinic staff, and parents discussed at length the prevalence of ADHD among students. There were also, especially among elementary school-aged students, diagnosed cases of learning disabilities, language difficulties (including difficulty identifying as well as verbalizing their particular emotions and problems that were causing them to feel upset in school), and autism.

Emotional Issues

School and clinic staff discussed a number of predominant symptoms regarding students' emotional health. Students were overwhelmed by academic stress and pressures, anxiety, feelings of self-worthlessness, mood fluctuations, and depression. Cases of bullying and social

isolation had also been reported as major challenges to students' sense of well-being. There were also students from both school levels who experienced emotional breakdowns, resulting in yelling, screaming, and crying.

> *So those children who are having emotional breakdowns, we used to call them temper tantrums and there are temper tantrums but then there are also these emotional [outbreaks], you can just see it, it's different. You know the screaming, the crying, it's almost like the students are in pain and so you can tell the difference between 'I want to get my way' and 'I'm really not managing.'* (School Administrator)

At the secondary school level, manifestations of students' emotional health issues ranged from academic apathy and eating disorders to thoughts of suicide. Some secondary school level students also exhibited self-harming behaviours such as cutting themselves, drug use, and unhealthy relationships; their mental health status could be manifested in physical symptoms including heavy breathing and hair loss. School and clinic staff also discussed cases of post-traumatic stress disorder (PTSD), for example, related to student exposure to gun violence in their neighbourhoods.

> *So we now see mental health issues coming forward more so…. It is something we are working on as an initiative at the Ministry level, and at the school board level and definitely the TDSB level. A lot of things have collided and geared towards the mental health piece.* (TDSB Central Staff)

Lifestyle Health Concerns

Students also had unmet lifestyle-related health needs regarding habitual concerns and/or personal needs.

Habitual Concerns

Habitual concerns exhibited by students included sleeping, nutrition, physical activity, exposure to drugs and drug use, and truancy – habits that led to unhealthy ways of living both physically and psychologically. A secondary school administrator acknowledged these habitual concerns and their adverse effects on students' health and well-being:

> *So it turns into a manifestation of health issues because they just don't take care of themselves and they just use general apathy. Not sleeping and then it turns into a lot of bad habits in their life. So it's difficult to solve because at the core of it, they're just generally feeling neglected and then they turn that neglect into sort of like low self-esteem, which leads to a series of bad habits which are unhealthy for them.* (School Administrator)

In particular, some secondary school students demonstrated poor weight management, such as eating disorders (e.g., bulimia, anorexia), obesity, and weight loss. Similarly, intentional and unintentional nutritional deficits existed in some students. Poor nutritional choices stemmed from dieting, self-deprivation, and financial challenges. Clinic and school staff also reported the use of tobacco, marijuana, ecstasy, painkillers, prescription medication, and drug cocktails by students. These substances were quite accessible in the community and were used as coping mechanisms for their stress and emotional issues.

Personal Needs

School staff, clinic workers, and students were also concerned about the living conditions of some students. For instance, there were elementary and secondary school students who often came to school and into the clinic with bed bugs. There was a reported case in which a family's apartment had a rat and cockroach problem which had negative health consequences for multiple members of the family. Aside from such unfavourable physical living conditions, clinic staff also noted in some cases challenging family issues – such as unstable family dynamics, mental health, or substance abuse among adults – resulted in stressful and unpleasant situations at home. A social worker acknowledged this particular situation and the kinds of effects it would have on the student:

> *I mean with a kid who has had sort of inadequate parenting his or her whole life, that kid is not going to get better from a couple of sessions with you. I mean you will work on certain kinds of goals that they then reach and then they go back out and they struggle again. Then they need to come back again, which is this boy that I was telling you about, that is the story of him and I. I met him when he was in Grade 2 and did some work with him then and did some work with the teachers, then I leave him and he comes back in Grade 3. That's how it goes for a kid like him. I would imagine that throughout high school he will continue to need support. And he will be one of those kids that may not make it through high school. He will be a kid who is at high risk to drop out. But also I would say he is at high risk to struggle with whether he wants to stay alive.* (Social Worker)

Sexual health was another concern among secondary school students. Students were generally not knowledgeable about sexually transmitted infections, contraception, and pregnancy, despite ongoing experimentation and diverse relationship types. There were secondary school students who visited the clinic for information on sexual health and pregnancy; often times, they masked their clinic visit by using different medical reasons. The clinic co-ordinator discussed this behaviour:

> *Sometimes there are girls who want to have pregnancy tests but we are told they are coming in because they have a cold or they're coming in because they have a friend who wants to get some information but in actuality they are scared that*

they are actually pregnant or they may have a sexually transmitted infection. Sexual health is a major component … as these are young adolescents. (Clinic Co-ordinator)

There were also a handful of cases in which secondary school students came to the clinic with worries of contracting sexually transmitted diseases.

I've had a call myself where one of the school staff called me saying that this boy, he doesn't know where to go, he's afraid to go to his family doctor, he recently had sex with a girl and he heard from his friends that the girl has syphilis so he's really scared, he doesn't know what to do. He was very scared. When he came in, we were able to send him for tests and give him advice about safer sex and also give him advice that he didn't have the disease. He hadn't caught the disease, and now he can be more responsible for whatever consequences. And that was a really big relief to him. (Clinic Co-ordinator)

ACCESSIBILITY BARRIERS TO HEALTH CARE

Although the Canadian health care system is publicly funded and universal, as noted earlier, accessibility barriers to health care inequities do exist, especially among families from high-needs communities. As shown in Table 2, these barriers can be tangible and intangible in nature.

Table 2: Tangible and Intangible Barriers to Accessing Health Care

Tangible Barriers	Intangible Barriers
• Financial	• Language barriers
• Geography	• Cultural barriers
• Time	• Stigma and denial
• Uninsured or unattached health care	• Fear and intimidation barriers
	• Negative experience with health care services
	• Concern for confidentiality

Tangible Barriers

Financial

Financial inflexibility prevented families in high priority neighbourhoods from seeking medical attention that required transportation. They could not afford extra public transit fares to visit family doctors or walk-in health clinics, the cost for out-of-pocket medical services, prescriptions, and specialized assessments. This significantly decreased their accessibility to health care.

> *A lot of our families do not have cars. They either walk or they get on a bus. Otherwise things don't happen. On a number of occasions we have had to drive the parent and the child either to the walk-in clinic or to the hospital or whatever because otherwise they'd have to take a taxi and money is an issue. So, on a number of occasions we've had to do that.* (Teacher)

Geography

Similarly, for some families, health care services were located in centres and clinics that were physically out of reach for them. One mother described that her own family doctor was located very far from where they lived. This limited her ability to seek regular health care for herself and her family.

> *The parents here often don't have a vehicle, they're reliant on public transit, and there may be multiple children so anything that's not local is very difficult for them to access.* (Teacher)

> *Some of them live far away; they have to take transportation. And some of them, the parents do not allow them to go out; they have a time limit to be at home so that is some of the barriers.* (Clinic Co-ordinator)

Time

Time could be a precious commodity for parents and caregivers who felt overwhelmed from looking after multiple children and elders, managing various jobs, and pursuing part-time education; sometimes all as a single parent. Competing priorities and limited time did not facilitate access to health care. For instance, after a child was advised by the school to have a checkup, for example, an ear test; it was normally the responsibility of the parents or caregivers to arrange appointments with health care providers in the community. However, this was often delayed or not followed through by busy parents who had to work more than one job, care for multiple dependents, and face poverty-related challenges on top of the accessibility barriers discussed earlier.

> *The parents appreciate the fact that we have the clinic here because they're working two jobs or they're working night shifts or they've got younger kids at home. They don't have time to take time off work or they don't have a job that allows them that flexibility to take their child to the doctor so we're able to help them facilitate that and I think a lot of parents appreciate that.* (Guidance Counsellor)

Uninsured or Unattached Health Care Provision

Another leading obstacle to health care access for children of newcomer families was the ineligibility for provincial health care coverage - Ontario Health Insurance Plan (OHIP). In some cases, families on a refugee claim admitted to not seeking health care services for the sole reason of not wanting to cause trouble or jeopardize their refugee claim.

> *There certainly was a need for the refugee and immigrant population for health care because you know the changes [that] the government made [so] it [is] not possible for refugees to gain access to the health care system. The kids that I worked with and their families didn't have doctors because they couldn't pay. They weren't part of OHIP. They would, for very long periods of time, often not have access to medical support because of that.* (Social Worker)

Even for students who did have OHIP coverage, many were unattached. In other words, they did not have family doctors, and hence consistent primary health care for them was uncommon.

> *A lot of our students actually don't have dentists or family physicians that they see, and ones that do see physicians regularly; it's usually at a walk-in clinic so it's not like they have someone giving them continuous care. It's always fragmented.* (Principal)

Intangible Barriers

Language Barriers

Language has impeded accessing health care services in the community on multiple levels. Newcomers are not comfortable with asking questions, receiving care, and understanding treatment options and diagnoses in a language that is not native to them.

> *Language is sometimes a concern because many immigrants, they have language issues. I think it happens for families when they're entering this school and they have some barriers, in terms of understanding the service they can get from the family doctor and also, the needs they're looking for.* (Clinic Co-ordinator)

Cultural Barriers

For immigrant families, cultural trust was another deterrent to seeking medical care. There was a certain level of refusal to seek external or institutional medical help among some parents because they either did not see the problems with their children as significant or serious enough to address, or they did not agree with "Western" medication. As such, they refused medical diagnoses.

> *I would say for me, the parents are coming from one of two camps. One is complete crisis. 'My world is ending, you have to do something; doctor, he won't be able to go back to school, what are you going to do for me today?' or 'I don't know why I'm here; the teacher told me to come but nothing's wrong with my kid so it's the school's problem,' and those are my two.* (Paediatrician)

At the same time, teenage students expressed hesitation in approaching their parents and/or caregivers about sensitive health issues. Many families did not openly discuss taboo topics such as depression, sexual health, or family problems. In such cases, students' health needs were seldom met, or they failed to receive appropriate and accurate information from family members. Some students indeed reported dismissal upon approaching their parents with a health concern, or that newcomer parents had neither the trust nor comfort level to rely on the health care system.

Stigma and Denial

Often newcomer parents were unsure of or did not recognize the exceptionalities their child demonstrated, particularly psychological conditions. There was also a certain level of denial especially regarding mental health on the part of parents, or a fear of a general stigma of labelling their children. For instance, it was not uncommon to have family members reject educators' claims that their child exhibited symptoms that warranted a medical condition. Because of denial or fear of stigmatization, students were deterred from obtaining necessary medical attention.

> *As a child back home, when there were kids who were jumping or not paying attention or doing what my son does, for us, it is a naughty child. So when my son did that, I only thought [he] was a naughty child. I would never think to take him to the family doctor. And would never have found out that he has ADHD.* (Parent)

Fear and Intimidation Barriers

It was also found that many immigrant or low-income families felt intimidated by and fearful of visiting hospitals, specialists, or walk-in clinics. This had much to do with their limited familiarity and understanding of the health care system and how to navigate through it. Their unfamiliarity led to the fear of using and accessing the health care system. They simply did not want to go outside of their communities, despite the level of need for health care services. This was especially apparent in newly arrived families, as acknowledged by the following health care professional:

> *For the newcomers to Canada, they're not as tapped into the health care so it's difficult finding a family doctor. I think that's what the challenge is. And sometimes they find a family doctor who doesn't take interim federal funding and then they start paying for services and it's just, I think there's just a lack of knowledge on what kinds of services are available. Ideally I'd like for newcomers to come to the community health center because we can provide services ... But that's not really something of the knowledge that's out there. I think it's tricky for them to navigate the medical system.* (Family Physician)

Negative Experience with Health Care Services

Several parents and caregivers discussed their adverse impressions and previous negative experiences with external health care services. These experiences included long wait times in the clinic, delays for appointments, and inflexible appointment scheduling.

> *The issue is always, how accessible is their primary health care provider in practice, even though on paper they have one in the records. In the OHIP records […], it shows that this person has a physician of wherever [he/she] may be, which is great if you can actually get an appointment at the time that you see the person and actually feel comfortable enough to talk to them. It's not always the case.* (MSPHI Central Staff)

Families also felt "rushed" when seeing doctors and were intimidated by the impersonal environment. Some families felt that the questions being asked were too invasive for their level of comfort.

> *I think that a lot of people will say that when they've seen a physician and nurse practitioners and others outside the school-based clinic, they're a lot more rushed, that they're under pressure, you know? Right from the time they go in, [they hear], 'Where's your OHIP card? Fill out this form. Take a seat.' […] There is*

> *a sense that the whole thing [is] being rushed, and being like a process in line.* (MSPHI Central Staff)

These factors combined prevented families from developing a trusting relationship with their health care provider. This was especially so with walk-in clinics, where the sense of disconnect between families and doctors and the resulted inconsistency was inherently greater.

Concern for Confidentiality

Certain parents and students felt that health care services in the community lacked a comfort level of privacy and confidentiality. A few parents would rather bar their families from going to a doctor appointment than to potentially encounter other family members, friends, or acquaintances at the clinics. These parents would find themselves embarrassed at the prospect of encountering someone they knew, and were even fearful of the kinds of repercussions (i.e., stigma) to which those social encounters would lead.

Confidentiality was also an overarching concern adolescents had when seeking medical attention especially regarding their emotional, mental, or sexual health issues. While private doctor's offices or walk-in clinics do observe patients' privacy, secondary school students still felt uncomfortable in fear of being seen by neighbours, relatives, or even family members when visiting their doctors or walk-in clinics. They also feared the family doctors sharing their personal health issues with their parents against their wishes. According to a health care agent, this partially explains the low utilization of health care services among high school students at medical clinics in the community. As described by a secondary school student:

> *My [external family] doctor, he is a great doctor, he's the best. But like I said, he is very popular in terms of the community. So like, he is very social. So I would go to him and he would talk about his trip. He knows my parents very well.* (Student)

CHAPTER 3: MSPHI STRUCTURE AND SERVICES

- Partnership Components
- Delivery Models
- MSPHI Clinic Co-ordinators
- Additional MSPHI Services
- MSPHI Patient Clientele
- Promotion Efforts

CHAPTER 3: MSPHI STRUCTURE AND SERVICES

Having studied the context (i.e., the demographics, health needs, and health care accessibility issues of the affected communities) in which the MSPHI clinics were operated, this section examines the MSPHI itself in terms of:

- Partnership components
- Delivery models
- Roles of clinic co-ordinators
- Additional MSPHI services
- Patient clientele
- Promotion efforts

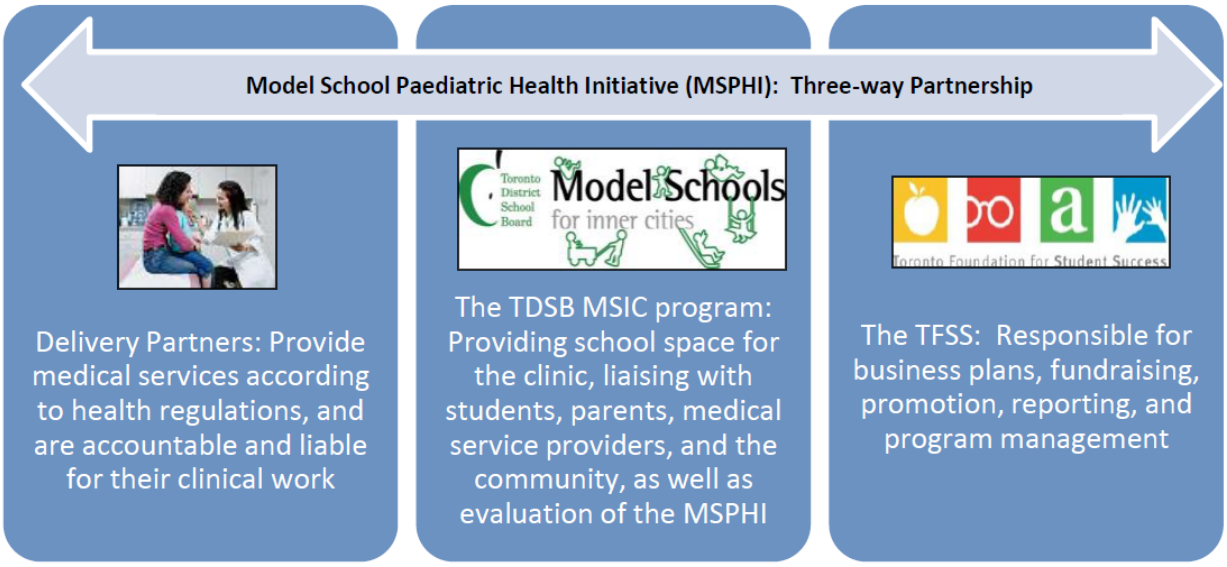
PARTNERSHIP COMPONENTS

In 2010, the TDSB launched this education-health integrative initiative as an extension of MSIC's Vision and Hearing Assessment. Data documented for the Vision and Hearing Assessment indicated health gaps and health care accessibility barriers for the inner-city population. As mentioned earlier, as high as 70% of students with auditory referrals did not receive the services they required following the assessment and nearly 30% of students referred for further vision or auditory services did not have coverage through the Ontario Health Insurance Plan (OHIP).

Considering these findings, the MSPHI was formed. This initiative recognized schools as a strategic access point for students facing health care barriers to receive needed services in the most direct and efficient way. It proposed that health care services, including follow-up for routine hearing and vision assessment, should be provided directly in schools to meet students' needs and eliminate several access barriers faced by families in priority communities (Wang, Bovaird, Ford-Jones, Bender, Parsonage, Yau, & Ferguson, 2011).

The four MSPHI clinics in this study operated under a three-way partnership – the TDSB, the Toronto Foundation for Student Success (TFSS), and the medical service providers within each community (e.g., Community Health Centres [CHC], or hospitals). The TFSS, the arm's length charitable foundation of the TDSB, leveraged funds for this initiative, secured commitments for the medical staffing, and in collaboration with the school board, oversaw all the operational requirements (see Figure 10 for the key roles played by each partner).

Figure 10: MSPHI Three-way Partnership - TDSB, Health Care Partners, and TFSS



DELIVERY MODELS

As documented in previous phases of this multi-year evaluation, the four MSPHI clinics reviewed operated independently under two main models:

- Hospital-based
- Community health centre (CHC)-based

Hospital-Based Model

Of the four MSPHI clinics under this study, only one adopted a hospital-based model. It was the very first in-school health clinic, opened in November 2010 at Sprucecourt Public School in the southern part of Toronto, in partnership with St. Michael's Hospital.

Health Care Providers

Within the hospital model, the Sprucecourt School clinic was initially staffed by a family physician and a paediatrician. They were joined by an additional paediatrician and a developmental paediatrician in later years. Generally, the family physician would see the students first and complete a medical history and physical assessment. Primary care would be provided to resolve any physical, mental, or lifestyle-related health concerns. For issues that were beyond the scope or expertise of the family physician, the patient would be referred to the on-site paediatrician. With additional medical training, the paediatrician provided a specific focus for the paediatric population and referred complex cases to the final member of the medical consultation team, the developmental paediatrician. The developmental paediatrician devoted longer periods of time for each patient in order to administer assessments, diagnose, and develop care plans for issues that were developmental in nature. In addition, another paediatrician was designated to attend, upon invitation, Student Support Team (SST) meetings at both the host and feeder schools, where they shared their medical knowledge and concerns with educators and parents about particular students referred to the SST.

Economic Logistics

Family physicians, paediatricians, and developmental paediatricians were paid through OHIP for each insured patient seen. When OHIP was not applicable (i.e., student was not insured), other avenues of funding were explored. For example, for student patients with refugee status, the Interim Federal Health Program (IFHP) was accessed (before changes to refugee laws). The health care professionals would also try to seek funding from the hospital through possible grants and initiatives for patients with no other way to pay for health care services. On the odd occasion, the health care providers would end up seeing the patients *pro bono* if there was no other form of funding available.

> *All of the people [these health service providers] are service-oriented. It's not money-oriented. They'd make much more money working for the community [in their regular clinics] and seeing 10 people in an hour rather than seeing 1 patient an hour [at the MSPHI clinic] but they are willing to do that, they are willing to see and spend those hours.* (Clinic Co-ordinator)

Clinic Hours

Due to growing demands for services over time, the Sprucecourt School clinic expanded its hours from the initial half-day weekly service in the first year (2010) to a three full-day service by its third year of operation (2013). The three full-day services were made possible through the success in gaining the interest and involvement of a developmental paediatrician, ability to provide additional coverage by a clinic co-ordinator, as well as the ever increasing demand for specialized health care services.

Health Care Approach

Health care professionals affiliated with the hospital-based model provided primary and secondary health care which was shaped by a collaborative, inter-professional team approach (i.e., among medical staff, educators, school psychologists, etc.) that functioned to reduce health inequities and provide the best patient-focused care to children in need. As an outreach team from an inner city hospital, the doctors also engaged students and their families in a respectful, comforting, and attentive manner. Furthermore, they exhibited an unwavering commitment to their patients through advocacy efforts and by being accommodating (e.g., booking medical appointments before/after regular clinic hours).

Types of Services

Although a wide variety of health care services was provided to students from the host and feeder schools, the hospital-based model had a focus on developmental and mental health care. For instance, the family physician supported patients with physical health concerns such as immunization, acute ailments (e.g., flu, lice, vision and hearing difficulties), and injury management. Owing to the area of specialized expertise of the medical team (i.e., paediatrician, developmental paediatrician), the majority of patients were seen for complex developmental (e.g., ADHD, Asperger's syndrome), mental health (e.g., anxiety, depression), and psychosocial (e.g., aggression, self-regulation) problems which involved assessment, diagnosis, and management.

Referral to Specialized Services

The partnership between the in-school health clinic and a hospital not only facilitated the care for diverse presenting issues, but also referral to external health care specialists (e.g., cardiologist, Ear Nose and Throat specialist, ophthalmologist, etc.) and professionals (e.g.,

audiology specialist), who were otherwise inaccessible to families. As noted by a TDSB social worker:

> *So the doctors from the clinic are connected to St. Michael's, so they have colleagues […] So this one boy, I was very worried about how depressed he was and so they got him an ongoing psychiatrist through, I think, the Child and Adolescent clinic at St. Michael's… We would sometimes make referrals for kids to see a psychiatrist through a place like Sick Kids or Toronto East General or St. Michael's.* (Social Worker)

Community Health Centre (CHC)-Based Model

For the other three MSPHI clinics under this study, the CHC-based model was adopted. They included:

- the Paul Steinhauer Paediatric Clinic, set up in April 2011 at George Webster Elementary School in the east side of the city, in partnerships with Access Alliance Multicultural Health and Community Services and Toronto East General Hospital;
- the first, and only, secondary school MSPHI clinic established in the Fall of 2012 at North Albion Collegiate Institute; and
- another elementary school clinic, opened in the Fall of 2012 at Willow Park Junior Public School in the east region, partnering with Scarborough Community Health Centre.

Health Care Providers

Within the CHC model, the in-school health clinic was staffed by a nurse practitioner and/or doctor (family physician or paediatrician). Nurse practitioners are registered nurses with an expanded legislated scope of practice who deliver nursing care at an advanced level to specific patient populations in a variety of health care settings. They were tasked with providing primary health care services and counselling to students. For concerns that were beyond the scope or expertise of the nurse practitioner, the patient would be referred to the doctor who attended the clinic once a month. The doctor would resolve any outstanding medical issues and refer complex cases to specialists in the community. At the secondary school health clinic at NACI, no additional medical specialists besides the nurse practitioner were needed on-site.

Economic Logistics

Nurse practitioners and doctors affiliated with CHCs were paid through a salary from their respective agent. Hence, they could see students with or without OHIP without any cost implications. For non-CHC doctors who provided medical coverage at the CHC-based MSPHI clinics, OHIP would be billed for the services rendered. For uninsured students, medical care would still be provided through CHCs' allocated budget from their corresponding Local Health Integration Network (LHIN) to serve newcomers.

> *There was a family that didn't have OHIP and the child wouldn't have been seen otherwise. There was a failed attempt to get access and even when the nurse [practioner] said there is an infection, you know the child needed antibiotics and did get it eventually. It came to our attention and we were able to connect him.* (Social Worker)

Clinic Hours

The two elementary school CHC-based clinics had expanded their hours of service over time due to the growing demand from the host and feeder schools. Starting off with one half-day operation per week, the two clinics extended their clinic hours to a weekly full-day service. In the case of the Willow Park Junior Public School clinic, in addition to the weekly service of the assigned nurse practitioner, a paediatrician would attend the clinic monthly for a half or full day, depending on the needs of the students, which was subsequently increased to once every two weeks. At NACI, the secondary school, the in-school health clinic operated one morning each school week, although appointments often extended beyond the allotted time.

Health Care Approach

Through the CHC-based model, a biopsychosocial-oriented practice was implemented at the in-school health clinics which meant that the multifaceted dimensions that constitute a student's health and well-being were prioritized from initial assessment, to diagnosis, and to external referrals and follow-up. This practice entailed the "onion" approach as one nurse practitioner used to describe the thorough probing, listening, screening, and assessment skills she relied on to build rapport with patients and learn more about the students' concerns. Since the CHC-based model was not focused primarily on developmental health, a preventative lens (i.e., health promotion and illness prevention) was supported. In addition, CHC staff, who held the patient-centred and holistic philosophy of care, established an inclusive and accepting environment, were committed to the diverse needs of their patients, empowered patients and/or their families to be decision makers in relation to their health, and helped clients navigate the health care system.

Types of Services

The nurse practitioner and/or doctor offered comprehensive services through the CHC-based model. This included completing general examination and patient histories as well as primary care associated with physical (e.g., immunizations, annual physicals, episodic illness care, injury treatment, etc.) and mental (e.g., anxiety, depression) health. Among secondary school students, the nurse practitioner also counselled on sensitive issues such as sexual health, weight management, nutrition, and other lifestyle issues.

Referral to Specialized Services

CHC-based in-school health clinics are ideally situated to draw from the rich network of medical resources and services as these facilities are often treated as satellite sites of the CHC. As such, external consultations or referrals back to the CHCs were made to access additional specialized health care professional services – including counselling, social work, physiotherapy, chiropody, community assistance, dental, and dietary aid. On occasions where health concerns could not be addressed at the in-school health clinic or the CHC, the CHC medical team would refer the student to their associated external health care providers or specialists.

ROLES OF CLINIC CO-ORDINATORS

Aside from the two key partners – the host schools and their health care partners, each MSPHI clinic was equipped with an assigned clinic co-ordinator. The latter played a central role in bridging educators, medical professionals, student patients and/or parents/caregivers to facilitate student usage of the clinic, as well as to ensure the in-school health clinics operated effectively, resources were used efficiently, and MSPHI goals were realized. For the four clinics in this study, the clinic co-ordinators were funded and centrally managed by the TFSS. They were multilingual and had a health care background and corresponding experience as they were International Medical Graduates (IMG). For their assigned clinic(s), they fulfilled the following vital clinic responsibilities:

1. Administrative
    - Booking appointments with the clinic, and coordinating referrals with the off-site schedules of MSPHI medical staff
    - Recording appointment details and making them accessible for collaboration between medical personnel
    - Ensuring the smooth and effective operation of the clinics so that health care providers could focus on attending patients

2. Management and maintenance of patient databases
    - Inputting and tracking all registration, scheduling, and referral information

3. Health-related knowledge
    - Acting as the first point of contact for the health care system and triaging patients using their medical background

4. Public relations and clinic promotion
    - Coordinating outreach activities held by the host and feeder schools to welcome families and the community (e.g., school council meetings, parent-teacher nights,

or other school events), where questions and information regarding the clinic were provided to the parents in their first language

- Conducting clinic outreach activities at school staff and principals' meetings
- Maintaining a positive image of the clinic to patients, families, and school staff, thereby generating word-of-mouth in the school and the community
- Liaising and facilitating effective communication and collaboration among different stakeholder groups (i.e., school staff, school administration, clinic staff, and external partners) – including cultural sensitivity and empathy, and advocacy

> *What we do is we do go to the schools for many events. So we always stay in touch with the principal, the vice-principal, the office administrators, from the feeder schools. We send them emails, we're always available for them to call if they have any questions. And we would also visit them.* (Clinic Co-ordinator)

5. Student Support
    - Reminding students of their appointments and accompanying students, where necessary, from their classrooms to the clinic
    - Fostering an environment of confidentiality and culturally-sensitive care
    - Recognizing, validating, and supporting the unique needs of student patients such as their concerns, fears, or stress
    - Informing students of health care services available in the community and how to navigate the system
    - Notifying families, at the discretion of the health care professional, should it be determined that the student was at any risk or that contact with the parent(s) was warranted

6. Family Support
    - Ensuring translation and language support were available for all families
    - Arranging appointments with sensitivity in order to accommodate working parents and minimize wait times
    - Providing a welcoming, culturally-sensitive atmosphere to ensure students and/or their parents or caregivers had a positive experience in the clinic
    - Raising awareness and understanding of the purpose of the in-school health clinic and health related concerns (e.g., beliefs, denial, stigma, etc.) among parents and families
    - Minimizing barriers (e.g., communication, and cultural tension) to seeking health care and understanding medical information

ADDITIONAL MSPHI SERVICES

Besides the physical and psychological health care services that were provided, the in-school health clinics leveraged a number of unique resources to further support their objectives. For example, health care professionals collaborated with families and Toronto Public Health on immunizations and vaccinations to ensure students observed the Ministry of Health and Long-term Care immunization schedule. The clinics also helped to manage and keep track of immunization records. Similarly, the in-school clinic nurse practitioner and nurses from the municipal health agency organized specific "flu clinics" for students and their families.

For families who lived far from the MSPHI clinic host schools, and who experienced transportation or financial related challenges regarding visiting the in-school health clinics, school administrators provided, where necessary, transportation fees from their MSIC discretionary funds. This allowed students and families outside the feeder school areas to utilize the clinics and receive health care equitably.

Another service made available under the MSIC program was the availability of interpreters and translators for families who could not speak and/or understand English. A nurse practitioner noted how important this was for parents and caregivers to be able to understand what happened at the appointments and communicate with the health care professional.

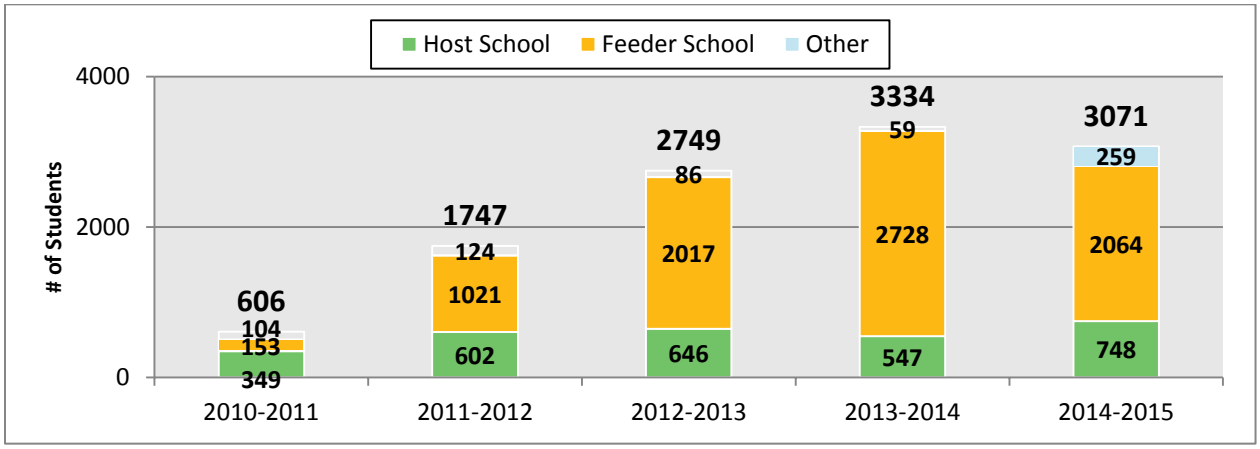
> *I can think of one patient. The mom, she spoke sign language, so we had an interpreter, obviously. And so in her case, I was like, 'Oh my goodness I can only imagine what's missing in their primary care appointments because she does need an interpreter.' So I think the kid was interpreting or I don't know, writing out? So you just think of what's missing. The fact that we're able to have access to all those, like interpreter services and primary care wasn't doing that. And I'm not sure how that was really… I don't know what kind of care was being provided when you are not really getting good communication.* (Nurse Practitioner)

PATIENT CLIENTELE

Students from schools which housed the clinic were apparently the MSPHI patient clientele. However, for the three elementary school clinics, their clientele also included students from their neighbhouring MSIC schools. In fact, according to the MSPHI database, by 2014-15, each of these three elementary school clinics supported at least a dozen of the feeder schools around them, totalling over 40 MSIC schools. As shown in Figure 11, while the majority of students registered for the clinic service in the first year of MSPHI were from the host schools, this pattern was reversed over the years with a higher proportion of the registered students coming from different feeder schools combined. In other words, more students other than those from the host schools could also utilize the MSPHI service. Also, while the main patient

clientele were MSIC students, where needed, younger siblings especially the pre-schoolers were also served.[2]

Figure 11: Total Registered for Elementary School MSPHI Clinics from Host and Feeder Schools



Source: MSPHI Clinic Data

In order to receive medical care through the MSPHI, referrals had to be made by parents or school staff. Some TDSB professional support staff such as social workers, who worked at MSIC schools and were familiar with the MSPHI, also played an active role in referring students with health concerns that were beyond their scope of expertise, like developmental or psychological co-morbidities. They would mostly refer students from feeder schools and occasionally some students from other MSIC schools not within the catchment area of the host schools.

> *So I used to work at Sprucecourt, it was a school I was assigned to, so I was very familiar with the clinic. Even in schools, where there wasn't that natural connection, it wasn't connected to model schools; I would still make the referral. Because I knew that I could get access and the families need was there. So sometimes it was the principal or I would call the clinic director and say that I have another family from another school that could really use the help.* (Social Worker)

Another avenue of referring students to the in-school health clinics was through the monthly School Support Team (SST) meetings. These meetings were facilitated by the school and involved teachers, social workers, school administration, parents, and possibly an MSPHI medical professional. During these meetings, students would be brought up as requiring attention for developmental or behavioural issues. The SST would have a referral form filled out and signed off by school staff and the parents/caregivers, which would then enable the student

[2] For other family members, especially those who were uninsured or unassociated, they were often referred to the CHC which partnered with the MSPHI.

to be seen at MSPHI clinics. This process also involved documentation to be completed by the homeroom teacher who identified their concerns about the student and a section for describing what their student was experiencing. Once a referral was made by school staff or through a SST, the parent or caregiver concerned had to give consent, schedule an appointment with the clinic, and then accompany their child to the appointment.

It should, however, be noted that for the secondary school panel, the patient clientele served were exclusively the students from the host school itself. Given secondary school students could, and would often prefer to, seek medical support without parental consent or accompaniment[3], having a clinic within a school building enabled them to have their health needs, especially sensitive health issues, addressed independently, conveniently and confidentially. On the other hand, this sense of autonomy, convenience and privacy would be compromised if these adolescents had to visit a clinic at another school or in the community. In fact, even within the same school, initially, it was often upon the advice or encouragement of the school staff, especially school administrators or guidance counsellors, which secondary school students with actual or suspected health concerns would make an appointment to visit the in-school health clinic. However, over time, because of students' own comfort level with the clinic, through word of mouth amongst peers, and continuous referral efforts of the school and clinic staff, the in-school health clinic had been utilized to full capacity by the student clientele within the school building.

PROMOTION EFFORTS

The MSPHI clinics had promotions both within their host schools and in their feeder schools. Educators, MSPHI health care providers, and clinic co-ordinators collaborated on various direct and indirect promotion efforts within the school community. For instance, in-school health clinics' services were promoted at school council meetings, staff meetings, parent-teacher nights, other school events, and the Parenting and Family Literacy Centres. Also, school information packages that were sent home at the beginning of the school year included MSPHI promotional materials. One clinic co-ordinator noted that these promotion efforts were also effective in attracting patients from feeder schools:

> *[The clinic staff] went to several school staff meetings, just to let the staff know that […] the school clinic is here. You can refer any of the children. And after that meeting, the referral numbers increased a lot because the teachers [knew] about* [the clinic]. (Clinic Co-ordinator)

[3] According to the Personal Health Information Protection Act, capable individuals over the age of 14 possess authority over the collection, use, or disclosure of their health-related information.

Similar promotional approaches were employed by the secondary school health clinic within the host school. For instance, at the start of the academic year, the clinic co-ordinator and nurse practitioner introduced the clinic to students at a school assembly. Weekly announcements were made over the school's public address system to remind students of the clinic's operating hours. Advertisement efforts were also made, including displaying posters in the school hallways and distributing leaflets among the students within the school building.

CHAPTER 4: ADDED VALUES OF THE MSPHI

- **Equitable Access to Health Care**
- **Timely Medical Attention**
- **Thorough Diagnosis and Treatment**
- **Holistic Support Beyond Medical Treatment**

CHAPTER 4: ADDED VALUES OF THE MSPHI

Having discussed the social and health-related contexts in which the MSPHI operated (Chapter 2) and its operational details (Chapter 3), this chapter examines how this unique health-education partnership has been able to yield important added values over regular health care avenues to address the often unattended health needs of inner-city students. Input from different stakeholder groups revealed a number of advantages the MSPHI could offer to vulnerable student populations. These added values included:

- Equitable access to health care
- Timely medical attention
- Thorough diagnosis and treatment
- Holistic support beyond medical treatment

EQUITABLE ACCESS TO HEALTH CARE

One of the key advantages of the MSPHI was its ability to mitigate many of the tangible and intangible accessibility barriers faced by inner-city students to medical services.

Tangible Barriers

Distance, Time, and Cost

As discussed in Chapter 2, some of the main deterrents for inner-city families in seeking health care pertained to the distance, time, and cost involved in visiting medical clinics. With the provision of primary health care within a school, parents or caregivers who had to accompany their child to see a doctor could now do so without having to travel long distances, take too much time off from work, or pay extra transportation costs – all of which could be additional burdens, especially for those who relied on hourly and/or minimum wages. In some instances, where immediate health concerns, such as eye infection, were detected at school, school staff could bring the concerned students directly to the attention of the in-school health clinic as long as parents were contacted and their permission was obtained.

> *The fact that [with] some cases like pink eye, the child can go straight to the clinic, get service, and then go back to class. The fact that the child, through a phone call, can get to the clinic and then not have a parent leave work … is a benefit to the family. Because here, a lot of our families have two or three jobs.* (TDSB Central Staff)

This geographic convenience also worked for parents from feeder schools, which were mostly located within the vicinity of the MSPHI host schools. As mentioned earlier, on occasion where

distance was a concern[4], some MSIC schools would use at their discretion, MSIC funds, to arrange transportation to ensure patients and their parents and/or caregivers were able to attend their appointments and receive timely medical attention.

In addition to extra travelling time and costs, another obstacle was the normally long wait times at doctors' offices, walk-in clinics, and especially hospitals in the community. This meant taking more time off from work, resulting in further loss of income for many parents and/or caregivers. On the other hand, the MSPHI clinics' caseloads were relatively manageable, and the appointments were often scheduled discreetly by clinic co-ordinators in such a way that double booking was avoided and adequate time was allocated per patient appointment. As such, students and parents and/or caregivers did not experience long wait times at the MSPHI clinic to see the medical professionals. In other words, both parents and students did not have to miss unnecessary time away from work or school.

> *Another time my child was playing [at school] and she got hurt in her knee […] and fortunately that day the [MSPHI] clinic was open, otherwise, I [would] need to go to the hospital and spend at least four to five hours there. It is a very horrible experience. Whenever I went for any treatment in the hospital it takes at least four to five hours; even more, sometimes even all night.* (Parent)

This convenience of location was also helpful for secondary school students. The case studies conducted in the two previous evaluation phases clearly demonstrate that having a clinic on school premises increased these students' utilization of medical services. They could seek health support directly without the need to skip classes or school or travel afar to visit an outside clinic.

> *Often if students do need to come back to their primary care provider in the community, the parents would have to take them or they would have to have extra money for a bus. They would have to take time off and miss school. The [MSPHI] clinic minimizes financial barriers. It minimizes time away from school and missing school work. It really optimizes the patient's well-being in that way.* (Nurse Practitioner)

As testified by a secondary school student, she was able to seek health care support without having to miss too much time from school.

> *If I make an appointment [with an external doctor] for like, 10:00am, because sometimes I have tests, when I go there, I'm like sitting there until 12:00pm. And the difference is when I make an appointment here [at the MSPHI clinic] at like 10:15am, I*

[4] This happened when students from other far-off MSIC schools required urgent or serious medical attention (e.g., mental health episodes, or developmental assessment).

come here like 10:13am, I get to see the nurse at like 10:15am, and at 10:20am, I'm finished and I just go back to class and do my test. (Student)

This convenience factor was particularly beneficial for students with chronic illness such as high blood pressure, anemia, asthma or mental health issues, which required ongoing or periodic monitoring and follow-up. Without such convenience, many of these health issues were left unattended, escalating to more serious problems down the road.

> *I think it's easier here, because if I go to the [external] doctor, I have to wait there in line and it takes a lot of time. Here, it's 20 minutes. Here, I think they are very mindful that students have [hall] passes and such. They try to make it faster and convenient as possible for students.* (Student)

Uninsured and Unattached Cases

Although most students have health care (OHIP) coverage, as mentioned earlier, there were families, especially newcomers, in high-needs communities who were ineligible for or unaware of it. For these families, the MSPHI helped alleviate the financial obstacle of out-of-pocket costs for medical attention. A case in point was a refugee student, who did not have health care insurance (i.e., OHIP) and experienced severe ear pain. His family managed to avoid exorbitant medical expenses and his potential long-term hearing complications by visiting, upon the advice of his school's social worker, a MSPHI clinic located in a nearby MSIC school, where he was treated with a prescription for antibiotics.

For example, I had a child at one of my schools this year who was a refugee kid who didn't have an OHIP card and the teacher came and said to me that the child had a terrible earache and was really suffering. She had taken him to the hospital and the hospital said it was $500 upfront and, 'we won't see your child.' […] The teacher then got a hold of me and said, 'Isn't there somewhere we could send this kid where he could get his ear looked at?' And that is exactly what we did. We did an emergency connection to the [MSPHI] clinic and he was seen. […] The child needed antibiotics and did get it eventually. (Social Worker)

Financial support to provide health care to uninsured patients was made possible through partnerships with CHCs, which have an allocated budget from their corresponding Local Health Integration Network (LHIN) to serve newcomers. The MSPHI health care providers affiliated with hospitals were also able to care for uninsured patients as their time was subsidized through hospital grants and initiatives.

I think having this school is like a blessing for the parents, especially for those of us who don't have [a] health card. So if there is something wrong with the children you can easily bring them here. I think here they don't ask if you have the medical coverage. [MSPHI] gives equal access for all. So I think this is the best part of the school. (Parent)

At the same time, where possible, clinic co-ordinators assisted eligible families in obtaining their OHIP cards by informing them of this program, explaining the application process, and helping them navigate the health care system.

Unattached Cases

While there is universal health care coverage in the province of Ontario for eligible recipients, focus groups revealed that many families did not have a primary health care provider (i.e., family doctor). For those who were not associated with any health care providers, MSPHI staff linked patients, and by extension their families, to a health care professional at the hospital or CHC (depending on the model) that was accepting patients.

Although some students were technically attached to a doctor in the community, these health care providers might not be too accessible (due to, for example, difficulty to schedule an appointment or geographic distance), or they had poor rapport with their provider. In such cases, MSPHI staff recommended these student patients and/or families to an accessible doctor or nurse practitioner at their associated hospital or CHC.

> *The issue is always how accessible is their primary health care provider in practice, even though on paper they have one in the records. In the OHIP records […], it shows that this person has a physician of wherever [he/she] may be, which is great if you can actually get an appointment, at the time that you see the person and actually feel comfortable enough to talk to them. It's not always the case.* (MSPHI Central Staff)

> *Research shows that a lot of families don't have a primary [health] care giver or care service, they don't have a doctor, they can't identify them as their family doctor, or they don't have OHIP cards to offset the cost.* (TDSB Central Staff)

Intangible Barriers

Chapter 2 outlines various intangible accessibility barriers encountered by many low-income and/or newcomer families, such as unfamiliarity with the health care system, infrequent utilization of its services, and/or their previous negative experiences with health care providers (e.g., long wait times, rushed service, denied care, or costly medical charges). Owing to these intangible barriers, parents felt unwelcome, intimidated, or helpless at external clinics. Evidence gathered from different stakeholder groups indicates that the very nature of the MSPHI clinics helped alleviate many of these obstacles.

Clinic Environment

The fact that the clinic was situated within a school setting had an added value of offering a familiar environment for students, removing the psychological barrier of feeling intimidated in

an unfamiliar medical setting. A case in point was a father who travelled from the other end of the city to take his son to the Sprucecourt School clinic, instead of a hospital, for assessment and treatment. As he articulated:

> *My son told me, 'I have no disease, why do I have to go to the hospital?' He refuses to go to [the] hospital, but if I say some clinic in the school, he thinks this is part of a school program or whatever, he feels much [more] relaxed, much [more] at ease, not nervous.* (Parent)

Also, as pointed out by an MSPHI central staff, compared to an outside clinic or hospital, schools were a more trusted environment to many families, especially those from immigrant backgrounds, as they were at least more familiar with the staff at their child's school and the physical building itself.

> *[The MSPHI clinics are] within the trusted environment. The school is a trusted environment. […] The fact that people don't have to navigate a lot, which may actually appear to them as users to be insurmountable barriers. […] I think there is also a cultural piece in terms of … the comfort of being in a school compared to a medical office, [which], for some, it's not a very easy, not a very relaxing, not a very comfortable place to go to seek assistance compared to a school environment.* (MSPHI Central Staff)

This factor is also true for secondary school students, who felt more comfortable in seeking help and advice regarding their health issues independently within a familiar environment, in this case, the school than a clinic in the community.

> *I think the ability for students to see medical staff in an environment which is their own environment, where they're already familiar, they're comfortable with. It's their territory, their space and it's very easy to call into the clinic and seek advice and seek help.* (MSPHI Central Staff)

Patient-centred Approach

Aside from the familiar school setting, the health care approach of the MSPHI clinic staff also helped mitigate other psychological barriers. Both immigrant parents and secondary school students found the staff at their in-school health clinic much more inviting, accommodating, and personable than what they experienced at most regular clinics. For instance, MSPHI clinic co-ordinators, who were often the first point of contact for students and/or parents were mostly multi-lingual or immigrants themselves. As mentioned earlier, they found it their role to promote a cultural understanding and appreciation of the diverse student population. They showed genuine interest in students and their parents who visited the clinic by, for example, learning more about their life story, or inquiring about their interests or weekend plans when they were in the clinic waiting room.

> *We are here to assist [the students and parents]. So that way, families are happy to come to us. And also, we are breaking all these invisible barriers, communicating with the school, talking to them, so that way, they are willing [even] to travel the distance to come, so that is an incentive for them to come.* (Clinic Co-ordinator)

> *If I'm in the waiting room, [the Clinic Co-ordinator] would ask me a few questions, like 'Hey are you playing any sports?' So they're really both friendly, which, you know, creates that environment.* (Student)

At the same time, the MSPHI health care providers, who were from either CHCs or the special hospital team allowed students and/or their parents time during appointments to be listened to and to have rapport built. This welcoming reception was in contrast to their feeling of coldness or being rushed in many private practices, walk-in clinics, or hospitals. As observed by a school principal:

> *A walk-in clinic is bam, bam, bye. They're not in and out. Here, there's that personal touch. […] Sometimes when someone goes to the doctor, they can't quite verbalize what their issue is. The [MSPHI] folks will listen. They will listen to them until they can get it out.* (School Administrator)

This observation was echoed by parents who compared their experience with MPSHI health care providers to those at their family doctor's office.

> *My [external] family doctor doesn't tell me anything. He just diagnoses you. At least over here [at the MSPHI clinic], they will sit there and explain to you what they mean by things. It's good that way too. My [external] doctor doesn't explain anything. He just tells you this is what you have and this is what you take and that's it.* (Parent)

Another parent contrasted the service she received from an MSPHI clinic versus that of a walk-in clinic:

> *Actually, when we used to go to the walk-in clinic, the problem was every time you go there, once a month, you see a different paediatrician so you are not being seen by the same person. So they want to see your file, they open it and they say, 'Okay then,' and they give you this medication or whatever the kids need but they actually don't know the child. If they don't read the file, they don't know what's going on. So that's my problem I was having with the walk-in clinic. We come in here with [the MSPHI doctor] and she says 'Oh, hi [child's name], I just saw you last month, how are you?' She actually knows what's going on because she knows her patients. So that was quite the difference.* (Parent)

Secondary school students were also able to discern the divergence in health care approaches between the nurse practitioner who served at their in-school health clinic and doctors at typical clinics.

> *[The MSPHI in-school clinic] is better than [the external] family clinic…like you have to wait, then you go, and when you tell them something, they go, 'Okay I understand, okay, okay'. That's it. And they don't care about us. Here [at the MSPHI in-school clinic], they care more.* (Student)

The nurse practitioner from the secondary school health clinic also articulated the distinction between the caring philosophy adopted by nursing in the delivery of health services versus the curative emphasis of most physicians' practices in the community.

> *The approach is that we chit chat about how school is going, 'Why is that? What do you want to do in the future? Oh why not?' That sort of thing. You start chit chatting and you start establishing rapport without the patient knowing it yet and then all of a sudden, they feel so safe and they are able to share with us. It is a caring approach, the philosophy of nursing [is a] caring approach…very, very different than the cure approach, where here is a rash and here is the medicine. 'Okay, nice seeing you. Come back and see me.' […] Whereas for me, it is a holistic approach. I want to know as much as I can about the student who keeps on coming back with this rash. Why is it?* (Nurse Practitioner)

Language Barriers

Language barriers can impede the capacity of parents or caregivers to address their children's health-related needs. MSPHI clinic co-ordinators, who were mostly multi-lingual, often acted as interpreters or cross-cultural conduits between newcomer parents and MSPHI heath care providers. Where needed, some MSIC schools arranged for other language interpreters to ensure families and students felt comfortable in accessing their in-school health care services, asking questions, receiving care, and understanding treatment options and diagnoses. Such language services are typically not available in private practices or walk-in clinics. As described by a general physician who served at one of the MSPHI clinics:

> *… the translators … come so often and they're so excellent. And we can't reproduce that [at our own outside clinic]. And to not get a history right at this level is a big deal. It's those [subtle and cultural] things that are difficult to translate sometimes that they're extremely good at.* (Family Doctor)

A paediatrician further explained how this otherwise unavailable translation support was an important added value for children from immigrant families to receive proper care, diagnosis, and treatment.

> *Sometimes you need somebody to be able to interpret what you say and contextualize it, like if there's no name for the word autism in a particular society or in a culture, you want somebody who can at least get across the concept in a different way. And that you don't get without a live person, in my opinion.* (Paediatrician)

Confidentiality

As mentioned in Chapter 2, for secondary school students in particular, their intangible barrier was more of a concern about privacy and confidentiality regarding their health needs, especially in relation to emotional, mental, or sexual health issues. With a health clinic located inside the school building serving students exclusively from the host school, not only did these students find it convenient, but they also felt safe to seek medical support confidentially without the requirement of parent consent. This sense of safety was reinforced by the assurance from the school clinic's staff that their privacy would be respected and that anything discussed at the clinic would not be disclosed to family members or school staff. As further explained by a CHC member:

> *As time goes on, and trust builds between students and the provider, you're going to create a situation or environment where students feel comfortable to come in. That relationship leads to early identification.* (Health Care Agency)

In fact, CHC stakeholders acknowledged that the MSPHI allowed them to meet their mandate and strategic direction to serve the youth population in a community who seldom visited their CHCs due to the various reasons discussed earlier. However, through partnerships with the MSPHI, the CHC was able to address the underrepresentation of youth in their patient roster by providing primary health care services to secondary school students inside their school building.

> *I mean in many cases for community centres, not all of us have success in serving young people. […] And so this […] helps to access, to reach the young people, using our family care service in a very effective manner.* (Health Care Agency)

TIMELY MEDICAL ATTENTION

Another important added value the MSPHI offered to inner-city students was timeliness of care. Time is a precious commodity with respect to medical concerns. The normal process for having students diagnosed and treated was typically long due to delays in, for example, arranging medical appointments by parents, obtaining required documentation from educators and health care professionals, receiving diagnoses, and coping with waitlists for specialists and/or programs. However, such delays could be reduced in the case of the MSPHI.

Ability to Obtain more Immediate Medical Attention

Often parents have difficulties scheduling doctor's appointments for their child within a realistic timeframe since most clinics which serve the general public are not accommodating of the busy lives of families and exacerbate this issue by double or triple booking patients. On the other hand, the clients of MSPHI clinics were mainly students from the host and feeder schools (occasionally from other MSIC schools). Hence, compared to outside clinics, caseloads at MSPHI clinics were much more manageable. As such, families and/or students who wished to make an appointment with the clinic were often able to do so within a relatively short timeframe.

> *The main problem [with external doctors] is the waiting time. And sometimes we cannot get [an] appointment. It is important and [an] emergency. Last month, I needed to make an appointment for my daughter but I couldn't get [one] with my doctor. […] So I just called this [in-school] clinic and they gave me [an appointment] that day, the same day.* (Parent)

Stakeholders were also appreciative of the reasonable wait times in the MSPHI waiting room. Typically, they found that they only had to wait a few minutes to see a doctor or nurse practitioner at MSPHI clinics, which is a stark contrast to waiting more than 90 minutes at private or walk-in clinics, not to mention hospitals.

More importantly, the timeliness had to do with the fact that students who had been identified or detected by school staff of any health related irregularities could now be referred directly to the in-school health clinic for immediate medical attention. Clinic co-ordinators contacted referred students (in the case of secondary school) or their parents (in the case of elementary school) and helped them schedule the earliest possible appointment with the MSPHI clinic. As a result, students' health concerns were attended to without the delays caused by the accessibility barriers discussed earlier.

> *There was communication between the social worker and myself and when there were students that were referred by the school; we did have communication back and forth within the parameters of confidentiality. But it was, I think, reassuring*

for the school staff to know that [students] were accessing care through [the in-school health clinic]. (Nurse Practitioner)

Furthermore, the very presence of a health clinic within a school, along with ongoing collaboration and interactions with clinic staff, helped heighten school staff's sensitivity to students' potential physical and/or psychological health issues. It became easier, more direct and more likely for school staff to take a proactive role in identifying students' health concerns, and referring them for diagnosis or treatment in a timely fashion. By doing so, more students were prevented from slipping through the cracks.

I think the key is we [medical professionals] are in a school so everyone knows where to find us. So the teachers, they refer one patient and we see them and through exchanges over the course of the year, they know to call to say, 'Hey you know what, there's been a change in the kid's status. We want you to see them again,' or 'this little bit of information might be helpful for you,' so I think that's a huge advantage. (Paediatrician)

In the case of feeder schools, with the presence of an MSPHI medical professional at some of the School Support Team meetings, more high-risk students with physical and/or mental health concerns could be identified, triaged, and referred to their associated MSPHI clinic for timely assessment, intervention, and treatment. In fact, over time, it became more common for social workers and school principals of the feeder schools to refer students with health concerns to these MSPHI clinics.

Shorter Wait Time for Developmental Assessment

The timeliness of the MSPHI service was even more notable in the case of developmentally related health concerns. In Ontario, the mean wait time for a developmental assessment is over a year (Gordon, 2012). Additional time is required for schools to then receive results and adjust the student's educational plan accordingly. Normally, this process could span two to three years. With MSPHI clinics, however, identification, developmental assessment, diagnosis, and appropriate educational modifications could take place within the same academic year. This expedited process had partly to do with the inter-sectoral partnership between the MSPHI clinic staff and the school staff. With the clinic housed inside the school and with close collaboration with host and feeder schools, the turnaround time for medical professionals to obtain required documentation from educators was expedited.

The benefit of the [in-school] clinic is we send the child there and they have the survey that our classroom teacher fills out and that gives them information back and it is much more immediate. Whereas, if you were to go to your family doctor

it takes X amount of times before things go back and forth. So that's an immediate piece that happens. (School Administrator)

Aside from the *inter*-sectoral partnership between education and health, the expedited process could also be attributed to the ongoing *intra*-sectoral collaboration of the MSPHI health-care providers. With their associated CHCs and/or hospital, there was a roster of medical professionals in place such that MSPHI clinics could facilitate the process for continuity of care by specialists where necessary. For instance, what would typically be at least a three-month delay to receive care from such medical professionals as paediatricians and developmental paediatricians, student patients of the MSPHI were able to have an appointment within a few weeks. In the absence of this operational dynamic, timely diagnosis and treatment may not occur or would span much longer timeframes of at least two to three years.

THOROUGH DIAGNOSIS AND TREATMENT

Focused Paediatric Care

In contrast to private practices or walk-in clinics which serve patients from all age groups with a wide spectrum of health concerns, medical professionals working with the MSPHI provided focused, holistic, primary health care to the pediatric population. As described by the MSPHI health care providers themselves:

… it's beneficial to have these in-school clinics because it's a focus of specialty. This is what we're geared to do - help these children. (Family Doctor)

Parents also found MSPHI health professionals more specialized, familiar, and sensitive to the health issues of their children than what they normally experienced in private practices or hospitals.

[MSPHI health care providers are] more focused with the problem compared to when you take him to the [external] family doctor. Knowing that you have the specialists here, the paediatricians here, they're more focused on what is the problem. They know better than just taking them to the [external] family doctor. […] The [MSPHI] doctors are more specialized, so we go to them because they have more knowledge about behaviours of the children, so they know how to deal with it. (Parent)

I have a feeling when we go to the hospital or family doctor, he does not know who will come – maybe woman, maybe old man, maybe child. He will refresh [for] a few [minutes] and then concentrate, focus on what the problem of the child is. But I feel that the doctors [at the in-school health clinic] realize [the patients who] come are kids. (Parent)

As recounted by a distraught mother, her family doctor dismissed her daughter's heart murmur and "didn't think it was something to worry about". Fortunately, with the diagnosis of an MSPHI paediatrician, her daughter was immediately referred to a cardiologist at a nearby hospital for a diagnostic echocardiogram and operation.

"Peeling the Onion" Approach

Parents and students also noticed that MSPHI medical appointments were exhaustive. Like the care provided at CHCs, once taken into an examination room, students and/or their families were given time by the MSPHI medical provider to talk about the presenting issues and other related concerns. This was seldom the case in private practices or walk-in clinics, where patients were afforded only a few minutes and permitted to discuss only one presenting issue per visit; patients often felt rushed. As described by a parent:

> *The thing is [doctors in the community] have so many patients waiting there, you are rushed, [there is] pressure. Sometimes it's hard to tell everything to the doctor.* (Parent)

Health care agencies admitted the limitations of private practices associated with the billing system.

> *Because [external doctors] are billing, like they want you in and out fast because they are billing by how many issues they deal with. They are billing based upon the amount of time, so they want you in and they want [to] deal with your issues and then they want you to leave and that is how they bill and that is the reality. Good or bad, whether you like or you don't, that is the reality.* (Health Care Agency)

Paediatricians further explained the constraints they faced in their own practices due to high demands for their service in the community. Hence, in their own offices they did not have the amount of time and focus to conduct as thorough an assessment or intervention as they did at MSPHI clinics.

> *With that said, both primary care paediatrician offices are very busy so you don't have the time to dedicate to the children specifically, it takes focus and it takes time…it takes more than an hour, and a paediatrician may have 40 patients to see in a day.* (Paediatrician)

Another paediatrician contrasted the limited service normally offered through emergency rooms or walk-in clinics with the comprehensive approach adopted at MSPHI clinics.

> *The nature of what you're able to do, definitely in the emergency room, in the walk-in clinic, is very limited. It's not going to be a holistic thing. You literally have*

10 minutes from walking in the door, to seeing the child, to making a diagnosis, to send them on their way. It's not the place to be doing [the MSPHI approach]. This is a very comprehensive assessment and it needs time and you need the space for that and the type of specialty that we have at the [MSPHI] clinic. (Paediatrician)

On the other hand, with the manageable caseloads of MSPHI clinics, and with the adoption of the "onion" approach by their health care providers, students and/or parents who visited these in-school clinics could spend time to discuss not only the presenting issues but also other health or contextual factors that might have affected their overall well-being.

It depends what [students] come in for, but I can tell you an easy 30 minutes would be a minimum and I could easily spend an hour [with each patient at the in-school health clinic]. (Nurse Practitioner)

I think one of the big advantages, as we mentioned before, is time. We have the luxury to spend more time with them. (Family Doctor)

When people see medical providers in the school environment, the actual experience is a lot more relaxed, there's usually more time for them, […] it's more thorough. Both from the services they get, but also their opportunity to talk about stuff and to go in with one presenting issue and talk about something else. (MSPHI Central Staff)

Moreover, unlike regular private practices which focus on addressing patients' presenting issues with medications, MSPHI health providers from CHCs and the hospital's special project team took patients' medical preferences into consideration, with explanations to patients and their families about their medical conditions and treatment options. As noted by a parent, while many private doctors or walk-in clinics were haste to prescribe medicines, staff at in-school health clinics would recommend different therapeutic options in addition or in lieu of medication.

Some doctors tend to say, 'Oh you have this, here is some pill for you.' And not a lot of parents like to give themselves or their children drugs. A lot of doctors are quick to push the drugs on you …. [The MSPHI clinic staff are] not pill pushers and basically, if the medication isn't needed, they're not going to force you to take it. (Parent)

Continuum of Health Care Services – Intra-sectoral Health Support

Whereas regular health care practices or walk-in clinics typically operated independently from each other, as noted earlier, the CHCs or special hospital projects which partnered with the MSPHI functioned intra-sectorally. For instance, while the hospital-based model was equipped

with a diverse roster of medical professionals (such as a family physician, paediatricians, and a developmental paediatrician), MSPHI nurse practitioners could tap into their CHC resources which typically included doctors, other nurse practitioners, dieticians, health promoters, physiotherapists, chiropodists, dental hygienists, social workers, and immigration lawyers on staff. This affords MSPHI patients with multiple levels of medical expertise and other health related input. Hence, even when some in-school health clinics could not perform certain diagnostic assessments or treatments, due to their association, these MSPHI health care providers could routinely refer students to their medical partners such as CHCs or hospitals for services ranging from the completion of blood work and x-rays to other specialized supports.

Easy Access to School-related Information for more Comprehensive Diagnosis

The education-health partnership of the MSPHI offered medical professionals the sharing of otherwise unavailable educational information about their student patients' school progress and behaviours. This two-way communication dynamic not only helped to promote informed health-related decisions, but also expedited appropriate treatment strategies. This added value would not be possible with education and health working in silos. As described by a parent:

> *We had a meeting a week and a half ago at the school and at our appointment yesterday, they had all of the information from the meeting and that wouldn't happen between a normal doctor and a school.* (Parent)

A family physician who also served at one of the MSPHI clinics explained as follows:

> *[..] Just say, [an outside] clinic, the doctor may not have time to call the principal, talk to the teachers whereas this is our [MSPHI] focus; to try and help children […] I think it's very helpful to get the perspective from the school, and if a child was being seen at a standalone clinic, I don't get that teacher input.* (Family Doctor)

With health care providers and school staff working under the same roof, the former could gain easier access to updated and ongoing school-related information about their student patients' conditions as well as their progress after treatment. These opportunities enabled more thorough diagnoses and effective interventions.

> *Almost everybody that comes in has some sort of educator-completed questionnaire or form that we have, which is really helpful. And then for many of the kids that we see, we'll have ongoing back-and-forth paperwork with teachers. […] I'll also ask [students] to bring a report card, bring other sorts of things so then at least we have that live feedback as the child kind of goes through our process as well to see how they're doing in school and getting that from the teachers as well.* (Developmental Paediatrician)

At the Sprucecourt School clinic, with the additional resources afforded by the special hospital team, a developmental paediatrician who offered weekly service at the in-school clinic was even able to occasionally conduct, with parental permission, classroom observations of students with concerning behavioural or emotional conditions. This facilitated more insightful diagnosis and appropriate treatment.

> *I've been able to do site visits in the classrooms as well. So there's [been] a few times where we've had kids with behavioural concerns or they're having a bigger meltdown … I just hopped over to their classroom down the hallway and spoke with their teacher and [observe] them. And with parental consent, I have been able to see them in that setting and do an observation, which in a [regular school setting], I would not have been able to do.* (Developmental Paediatrician)

HOLISTIC SUPPORT BEYOND MEDICAL TREATMENT

As documented in previous evaluations of the MSPHI (Yau & De Jesus, 2014), the approach to health care provision through these in-school clinics has been holistic in nature. In other words, MSPHI doctors and nurse practitioners upheld that health and well-being are products of the multidisciplinary interaction between biological, psychological, and social (including economics, environment, cultural, familial) factors. Therefore, the resulted interventions often extended beyond medical treatment.

> *The model that we follow really provides comprehensive primary care with a focus on social determinants of health. […] We also look at the psychosocial and biological aspects of the illness. We incorporate growth and development as well to our approach to the high school students. That's very much different than what you might get [at] a walk-in clinic, [which] may not know the patient. It also provides continuity of care. So care is so much more comprehensive and meets the needs of the patients holistically.* (Nurse Practitioner)

Socio-economic Concerns

By developing a strong rapport with patients and/or their parents, MSPHI health care professionals were able to gain a better understanding of the various circumstances their patients had been facing. After all, the CHCs and the special paediatric hospital team were by nature more trained and sensitive to the needs and conditions of the marginalized population in the MSPHI communities.

> *We have built expertise around a particular population and what their needs might be and the most effective strategy, and what the best evidence-based strategies might be to work with that population.* (Nurse Practitioner)

> *The staff that we have put into those [MSPHI] clinics are also trained and more sensitive to the needs of vulnerable people, whether it's medically or the social determinants of health.* (Health Care Agency)

For instance, in their respective focus groups, doctors and nurse practitioners described how they realized some of their student patients were being subject to longstanding difficult home environments, ranging from financial difficulties and sub-standard housing to parental mental health concerns, drug abuse, and parenting issues.

> *[A] child's having behavioural outbursts in the classroom; when you're asking what's going on at home, he's experiencing a very negative situation, where his mom and dad aren't together, ... So you can only imagine [the toll] that must have on the child … We have to imagine if there are other things going on and we have to consider that if we're going to be helping the child. […] Are the parents having their own struggles? Whether it's with substance abuse, whether it's with the law, whether, you know, because of that they're having trouble getting a job and that's affecting them financially and that's affecting their home.* (Paediatrician)

To demonstrate, a newcomer child presented at the in-school clinic with a swollen and infected arm. Instead of just prescribing a topical ointment as in regular medical practices, through detailed conversations with the student and parent despite their language barriers, MSPHI medical staff realized that the skin problem was due to a bed bug infestation. Upon further probing, they also learned that the young girl had an infant brother who developed abdominal pain, which was then found to be attributed to exposure to pest poison in their apartment. Efforts were made by the MSPHI staff to bring the younger brother to the clinic to receive immediate care, and social work services from the associated CHC were called on to advocate for improved living conditions.

> *[MSPHI] allows the family to interact with family doctors and/or settlement workers and/or social workers and other individuals who are all part of the village that helps raise that particular child.* (Paediatrician)

By extension, another MSPHI health care provider described an instance where a child received a prescription from a doctor in the community for a medication that was not covered under the parent's social assistance program. As a result, the child was unable to receive the medication he/she desperately needed. The parent turned to the in-school health clinic to remedy the situation. The MSPHI nurse practitioner, who was familiar with the needs of low-income and newcomer families, prescribed the generic version of the medication, thereby eliminating financial burdens for the family and improving accessibility to treatment.

> *Not all primary care providers in the community are comfortable or used to dealing with clients of lower income, new to Canada, on disability, on Ontario Works or things like that. I remember a client who came in with a prescription*

that she couldn't get filled because she had to pay for it. 'I'm on Ontario Works. I'm supposed to have my medication covered' so it just took me the time to look at the form there to see what comparable medication was covered for her child, so that was an easy fix. That maybe someone in the community had prescribed the brand name drug that wouldn't be paid for, that would've been very costly for someone who would have to pay out of pocket for. It was quite an easy fix. I just had to know where to go looking for, which is something I do on a regular basis anyway. So that, I think, made the difference for the child to be able to get his medication and the parent also feeling like they were listened to and their social determinants of health were addressed. (Nurse Practitioner)

Promotion of Healthy Lifestyles

Aside from addressing students' presenting issues and the associated root causes, the MSPHI staff, with its holistic health care approach, also offered preventative care. As described by a TDSB central staff member:

To me, the purpose of a paediatric clinic in a school [is] beyond the 'I'm going to deal with the presenting issue.' [It] is working towards healthier lifestyles, making better choices for your life, seeing that there are many options to being healthy, and of course the access to that. Where will you go if you want to have a better diet? Then again, all of these things are tied to other factors: housing, employment, you know, those other social determinants of health and well-being and education. (TDSB Central Staff)

From building rapport, MSPHI health care providers were afforded an exhaustive overview of their patients. As such, they were able to provide patients with information and recommendations to lead healthier lifestyles before their physical and/or mental health would deteriorate.

We can help [students] to find ways of coping with their own stress, with their own issues and challenges, [and] then we can support them to make better choices. […] If we can support them to make healthy life choices, to eat well, to exercise regularly, to learn coping strategies, how to self-regulate and be resilient down the way, they may not need to seek medical attention. (TDSB Central Staff)

Considering the susceptibility of children to communicable diseases, immunization and vaccination were further preventative health measures in place at the MSPHI in-school health clinics. Prevention, identification, and management of contagious illnesses was a high priority for a student population with a large proportion of newcomers who might not be aware of the Ministry of Health and Long-Term routine immunization schedule. As such, the school health clinics provided age-appropriate vaccines to students in a timely manner. As previously mentioned, in partnership with Toronto Public Health (TPH), the MSPHI health care providers

and TPH nurses arranged for specific "flu clinics" for students and their families. This proved to be an effective population-based disease prevention strategy, as students had accurate and up-to-date immunization records and were less likely to acquire and/or transmit contagious diseases.

Enhanced Learning Support from School Staff

Another added value of the MSPHI was the opportunity it created for school staff to have a more holistic understanding of their student needs from the health perspective, thereby enhancing their support for students. Through interactions with MSPHI medical staff, teachers gained a greater appreciation of their students' learning difficulties, developmental concerns, and emotional challenges. In turn, this facilitated their development of Individualized Education Plans (IEP), tailored their teaching approaches, and modified the learning environments for their affected students. As recalled by a parent:

> *We've got him in the Home School Program (HSP) at his school. […] I think the teachers, knowing now [that he has ADHD], are using 'kid gloves' instead of 'You shouldn't be acting that way.' I think it's helped.* (Parent)

Another case in point was a newcomer student from Nepal who exhibited behavioural concerns. Educators suspected that he had Attention Deficit Hyperactivity Disorder (ADHD) and referred him to the in-school health clinic. After probing and assessment, the paediatrician concluded that the child did not have the disorder and his behaviour was primarily a manifestation of the educational environment and norms in Nepal. With this knowledge, educators gained a better understanding of this student's unique educational background, and adapted their response to his classroom demeanour accordingly.

> *When you dug deep into the history and story, part of the thing that came out is that the school that he attended in Nepal was outdoors. So [the students] would literally be outdoors, no classroom, no seating; they would be able to go out and do something and they would be able to come back and just listen to the teacher. […] And so all of a sudden he went from that environment to the environment where he was being asked to sit and colour within the lines and not go out except for recess. [Educators] couldn't understand why he was hyperactive. So he came to us [at] the opposite end of the story [i.e., with a suspected developmental disorder]: Does he have hyperactivity-attention deficit disorder and the answer is no. He [has] behaviourally been programmed to expect that his day is mostly play and a little bit of work.* (Paediatrician)

Also, the very participation of MSPHI health providers in the School Support Team meetings at the host and feeder schools further exemplified the intersection of health services and education. It provided another opportune environment to facilitate a collaborative partnership between school and clinic staff in order to support student success. Educators, such as administrators, teachers, early childhood educators, guidance counsellors, and administrative staff, were well-positioned to identify any irregularities in students' health and well-being. Traditionally, this knowledge ends here but the added benefit of in-school health clinics was the reciprocal and collaborative nature among MSPHI educators and health care professionals. This afforded educators with a medical perspective and health care providers with a school perspective.

> *Breaking down silos, having multidisciplinary teams, looking at a more holistic view of education and health and mental health and well-being […] ends up kind of giving us the opportunity to really assess the family from multiple angles, and I think that's where the added value is.* (Pediatrician)

> *[…] You don't always have that [school] perspective when that child comes in to see you at the [regular] clinic. You have a different focus [there], and […] you just won't ask […] [Being able to participate in School Support Team meetings] is the chance to hear from the educator's angle what's happening in the [classroom], from the principal's or vice-principal's perspective what's happening with this child at school, from maybe the psychologist if they've seen the child, speech and language maybe, what's happening. […] I think it's very rich to be able to hear; it's another step to really help you grasp this child and help you understand what's happening, and especially for these complex cases, I think the more you focus on it in a different angle, the better, because it's so complex. […] You would never be able to provide that kind of care in an emergency or walk-in.* (Paediatrician)

This fluid, coordinated, and continuative health care service from different professionals in one location has not been duplicated by existing providers in the community.

> *We are working closely with members of the school board, teachers, special education, sometimes psychology, sometimes patient language. So we have the advantage of just being right in there and communicating with them and sharing information back and forth, which really helps with the child's management and assessment.* (Paediatrician)

CHAPTER 5: IMPACT ON STUDENTS

- Better Health and Well-being
- Improved Schooling and Learning Experiences
- Health Literacy and Self-Advocacy
- Reduced Mental Health Stigma

CHAPTER 5: IMPACT ON STUDENTS

Having learned about the added values of the MSPHI, this chapter focuses on the kinds of impacts the in-school health clinics made on inner-city students. Both quantitative and qualitative data collected throughout the four phases of evaluation clearly reveal that students benefitted from this integrative health-education initiative in at least the following areas:

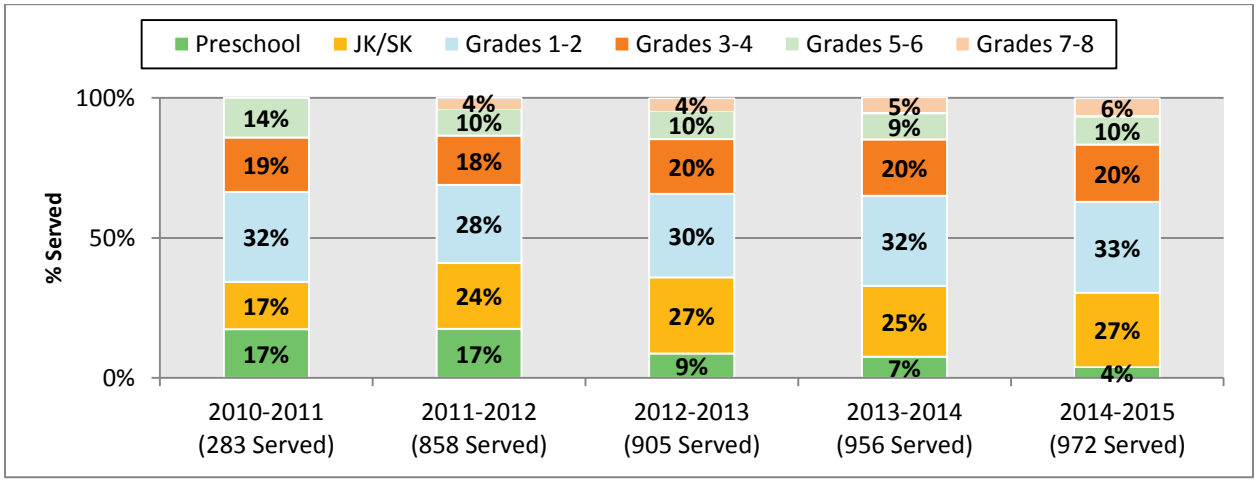
- Better health and well-being
- Improved schooling and learning experiences
- Health literacy and self-advocacy
- Reduced mental health stigma

BETTER HEALTH AND WELL-BEING

More Inner-city Students with Physical and Mental Health Concerns Accessing Health Care

Since its inception in Fall 2010, the MSPHI with its four established in-school health clinics had served over 4,300 appointments from both the elementary and the secondary school panels. As illustrated in Figure 12, nearly 4,000 of these appointments, from both the host and the feeder schools, were served by the three elementary school MSPHI clinics with the larger proportion of the student patients enrolling in the primary grades, especially Grades 1-2.

Figure 12: Grades Served at the Clinics of Sprucecourt, George Webster, and Willow Park

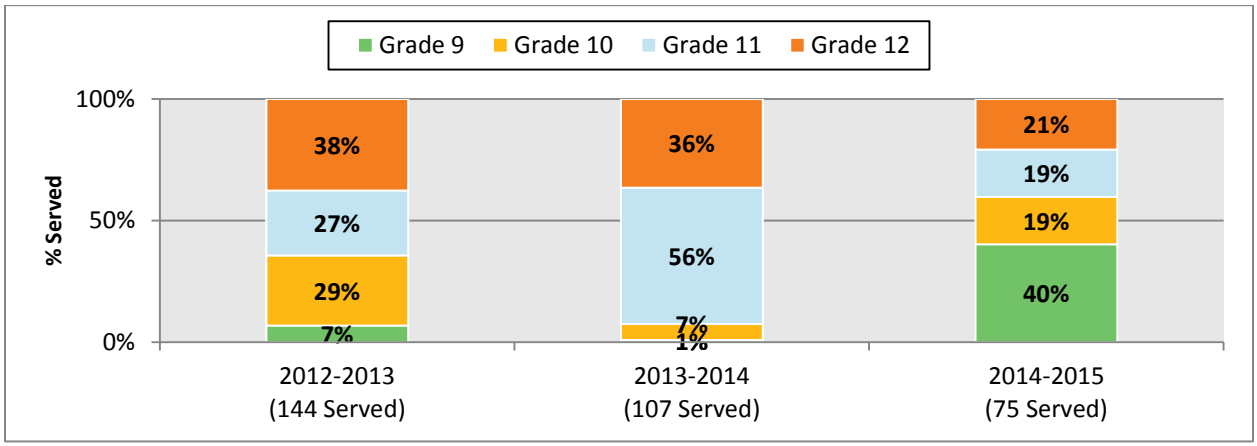


Source: MSPHI Clinic Data

At the only secondary school health clinic, more than 300 appointments made by NACI students had been served by its half-day-per-week clinic over three years since 2012-13. As shown in Figure 13, in the first year, it was mainly the students in Grade 12 who utilized the clinic service. In the second year, the majority of the clinic users were from Grade 11. It is

interesting to note that by the third year of its operation, many more students in Grade 9 began to access the health service offered in their school. This could be a positive sign, as more first-year high school students with health concerns were willing and able to seek medical attention or intervention early on in their secondary school career.

Figure 13: Grades Served at North Albion Collegiate's In-School Health Clinic

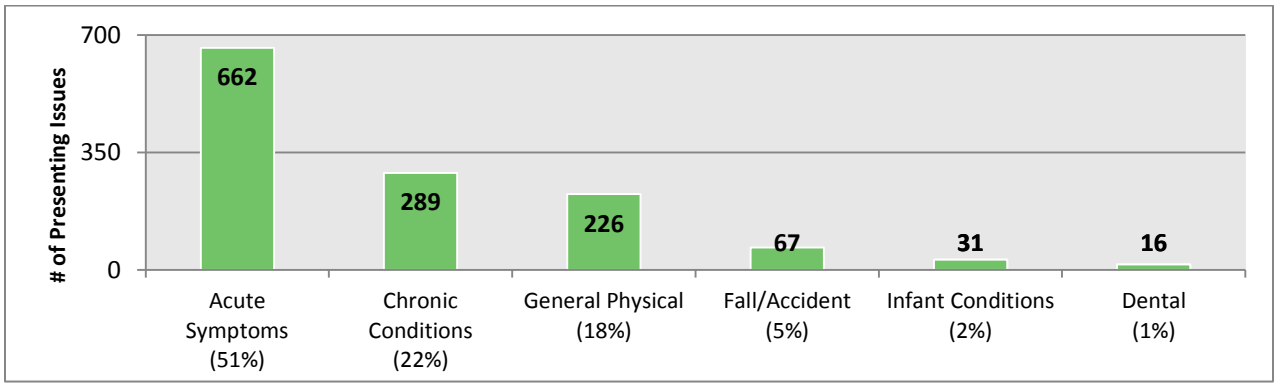


Source: MSPHI Clinic Data

Physical Health

According to the MSPHI database, half of the physical health related issues addressed by the four MSPHI clinics were acute symptoms such as skin ailments, cough, fever, digestive issues, cold, ear pain, etc. Physical health problems related to chronic conditions made up about a fifth of the presenting issues addressed by the four MSPHI clinics. These included cases related to eyesight, hearing, allergies, and asthma. Other types of physical health treatment students received at MSPHI clinics included general physical examination, first aid due to injuries incurred at school, and dental issues (see Figure 14).

Figure 14: Distribution of Presenting Issues at MSPHI Clinics



Source: MSPHI Clinic Data

At the NACI clinic, a few secondary school students also received diagnosis and regular monitoring of their chronic health issues, like diabetes, high blood pressure and anemia, along with treatment and advice on dietary supplements and modifications to manage their blood and overall health conditions.

> *When I did the blood test, [the NP] said my hemoglobin was low. She gave me things to eat. She gave advice.* (Student)

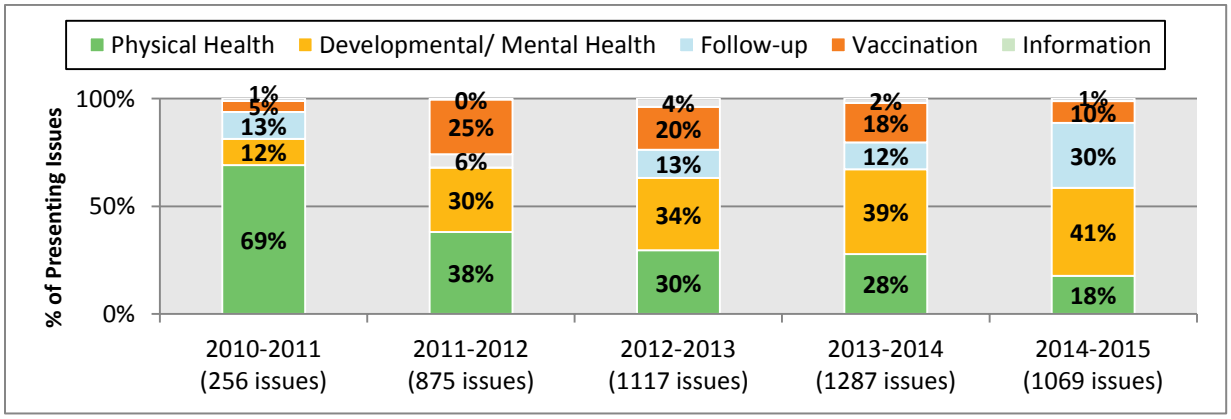
Mental Health

Initially, the in-school health clinics opened with having more of the physical health needs of the students in mind. As time went on, many health providers noticed that mental health issues increased in relative proportion. As observed by an MSPHI paediatrician:

> *When we started this clinic four years ago, we expected or thought that the priority or the focus would end up being general medical care, general paediatric care of children in a region where there were high barriers to health care, and you know, we were expecting kids who couldn't access doctors and were immigrants or refugees, or English wasn't their first language, etc. … So that was overall, I think that's like, you know, looking at it from four years ago to now, that was one of the biggest things that I thought was surprising on one side of things and not surprising on another. I guess in retrospect, you start a clinic in a school, you're going to have school problems and developmental problems but I didn't know the degree to which it would evolve into that being the major focus.* (Paediatrician)

This observation was corroborated by the cumulative data records of the four MSPHI clinics. At the beginning, the largest share of the presenting issues were related to physical health. Over time, these in-school health clinics witnessed a steady shift from addressing mainly physical health issues to mental health concerns as demonstrated in Figure 15 among the three elementary school MSPHI clinics.

Figure 15 : Presenting Issues over Time - Sprucecourt, George Webster, and Willow Park

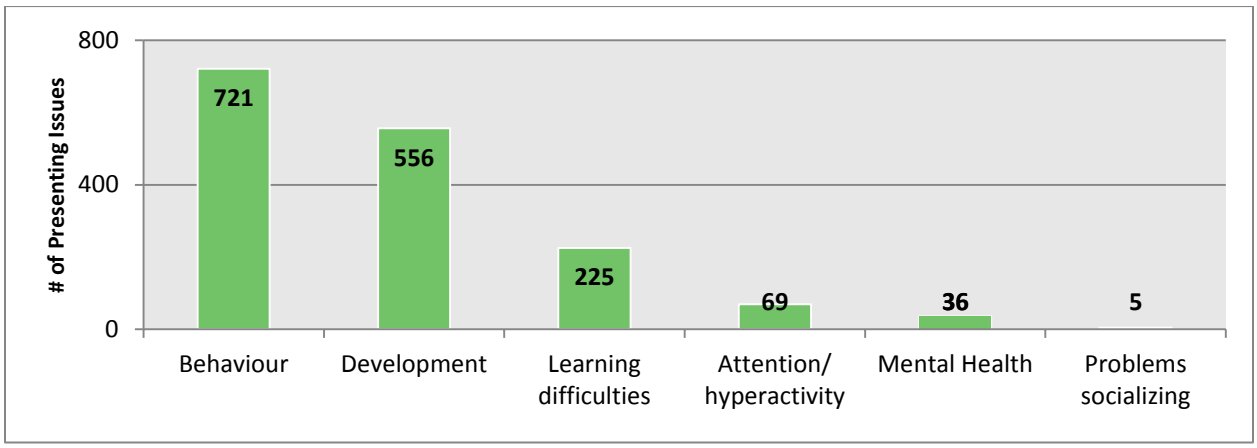


Source: MSPHI Clinic Data

Developmental and Behavioural Health Among Elementary School Students

According to the MSPHI database, for the three elementary school clinics, the mental health related issues addressed were more related to behaviours associated with, for example, ADHD, developmental concerns, learning difficulties, as well as emotional well-being such as anxiety and depression (see Figure 16).

Figure 16: Distribution of Mental Health Related Issues at MSPHI Clinics



Source: MSPHI Clinic Data

Parents, educators, and clinic staff alike agreed in their respective focus groups that due to the in-school health clinics, more children with developmental and behavioural exceptionalities were able to be formally and promptly diagnosed. As a result of these formal identification and diagnoses, a cascade of events were initiated that brought about appropriate intervention in a timely manner. As recalled by a teacher:

> *I had a little boy last year start with me in Grade 2. His mother, who was quite young, had been diagnosed with ADHD, and she came to me and said, 'I didn't finish school and I want better for my boys. I think I see the ADHD in my son and I really need to figure something out.' So he went to the clinic and […] within two months, she was able to sit with the paediatrician who interviewed the boy. I did the paperwork and he did get the diagnosis.* (Teacher)

A parent commented how if it were not for the in-school health clinic, his son would not have been diagnosed with autism and treated accordingly.

> *As I said before, we used to go to a walk-in clinic. With the walk-in clinic, […] my son used to see a different paediatrician every month, so then we were referred [to the MSPHI clinic] by the nurse practitioner. I'm so thankful for coming here because if I didn't come here and [the paediatrician wouldn't have]*

> *[My son] was on some medication in India and [the MSPHI paediatrician], after examining him, she said 'Let's try some different kind of medicine. This isn't helping. Let's try this.'*

referred my son to Surrey Place, he would not [have] been diagnosed autistic. I wouldn't have known it. (Parent)

Some parents also described how MPSHI medical professionals would sometimes modify the type of medicine or dosage previously prescribed by external health care providers in order to improve drug efficacy and outcome for their children.

The [ADHD] medication that we had been given was lasting for only half an hour… low dosage. So [the MSPHI paediatrician] increased the dosage and changed the medicine itself. So it lasts for … 16 hours. (Parent)

Aside from offering diagnosis and prescriptions to address students' psychological, developmental and behavioural needs, MSPHI health care professionals provided other care plans such as counselling, specialty programming, community services, and parent education. For instance, from the diagnosis of developmental disorders, such as Asperger's syndrome and autism, parents were able to seek appropriate therapy and social skills programs in the community to nurture their children's social competencies. With multiple layers of support initiated by the MSPHI, many of these students became more sociable in the classroom and playground.

He is a high functioning autistic. The old diagnosis [was] Asperger's Syndrome. His problem is social skills, so I have him in [a] social skills program at the Geneva Centre. So far he is doing good. (Parent)

During their respective focus groups, health care providers, teachers, and school principals described psychological benefits gained by students who had received diagnoses and ongoing management of developmental and behavioural issues through the MSPHI clinics. These benefits ranged from enhanced levels of happiness, ability to concentrate, self-image, and confidence to reductions in anxiety, mood swings, and depression.

He stopped wandering, he stopped drumming, he stopped being an agitator. […] And so he was proud of himself, he was successful. (Teacher)

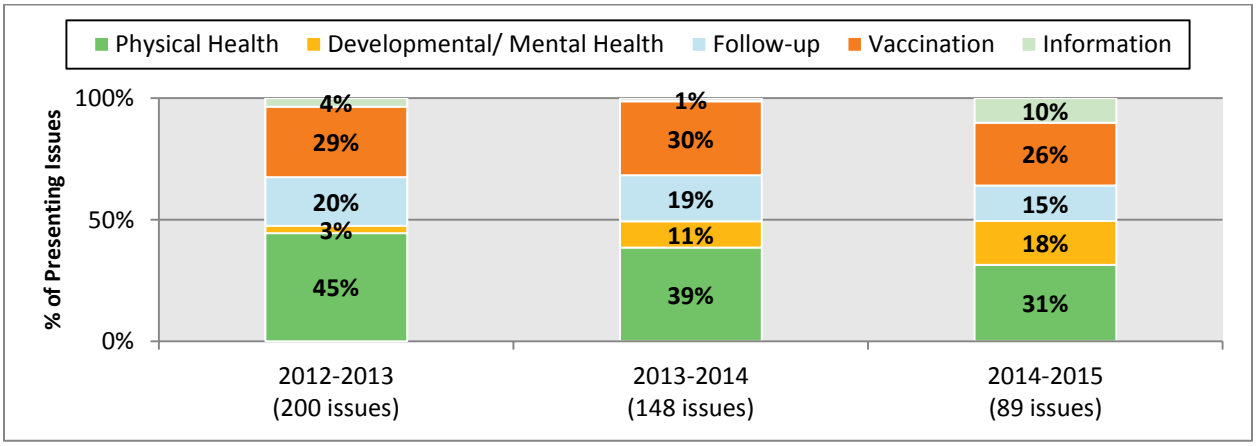
But I think what it is for him too is his self-image has changed, so he believes in himself as a student now. Before he was a little, 'Oh I'm in trouble again, I'm in trouble again.' So it's his self-image that has improved. (School Administrator)

These qualitative results are similar to those in other literature, which indicate that early intervention and support for children diagnosed with developmental challenges enhances developmental outcomes and hinders psychological stress (Augimeri et al., 2007; Bailey et al., 2005; Gordon et al., 2011).

Psychological Health among Adolescents

As in the case of the three elementary school MSPHI clinics, at the secondary school clinic, the proportion of presenting issues related to mental health also grew markedly over the three years of operation (see Figure 17).

Figure 17: Presenting Issues over Time: North Albion Collegiate Institute



Source: MSPHI Clinic data

In fact, according to the clinic's nurse practitioner, there was an under-reporting of mental health concerns in the presenting issues records. Through probing during appointments, the nurse practitioner realized that many of the presenting issues associated with physical health were indeed rooted in emotional problems such as self-image, anxiety, stress, or depression. At times, these conditions manifested as self-harm (i.e., cutting, drug use, negative relationships), poor coping, and suicide attempts.

During the focus groups, various stakeholders disclosed how secondary school student students who had been seen by the nurse practitioner at their school health clinic showed improvements in self-image, emotional strength, and coping abilities for stress and anxiety. The nurse practitioner also attributed these gains to the self-management strategies offered to the student patients over time, and the fact that they could easily visit the clinic for health care support and to be listened to.

> *I feel that we made a good impact in stabilizing the anxiety and giving students the tools that they needed to self-manage their anxiety. And I think that it also afforded them support knowing that it was somebody they could go talk to or access. I think that was very helpful and gave them inspiration to manage their symptoms and anxiety.* (Nurse Practitioner)

> *[One student] was very depressed when she came to us in the beginning …. I could see it on her face and you know, when she came after four or five sessions, then I saw she was a little bit happy. She was talking to me and she was responding. She was herself, saying that she really got the benefit of talking with the NP and, 'I really feel good about it.' She wanted to continue coming.* (Clinic Co-ordinator)

The clinic co-ordinator also witnessed how secondary school students with more serious emotional issues had been supported and monitored regularly through the in-school clinics that helped them cope with their personal crisis.

> *One girl in particular was having a hard time at home. She was having lots of conflicts with her mother, continuously arguing. She started getting into relationships with boys trying to kind of fill that gap. She started cutting herself and she was brought in by one of the vice-principals and they were desperate like, 'We really need this kid to be seen and helped. We don't know what to do.' And our nurse practitioner was able to talk to her, counsel her and all, send her to a psychiatrist to have more additional support and counselling. You could see a change. […] She kept coming, coming for maybe 7 or 8 times.*
> (Clinic Co-ordinator)

Related to emotional well-being, secondary school students who visited their in-school health clinic also benefitted from a spectrum of preventative care. For instance, the nurse practitioner advised students about healthy lifestyle habits and helped students develop individualized plans towards prevention as well as promotion of positive health outcomes in the areas of sexual health, weight management, nutrition, and exercise adoption.

The in-school health clinic also impacted positive interpersonal relationships among secondary school students. In some cases, students became more introspective, and by gaining a greater depth of understanding of themselves, they were empowered and cognizant of the consequences of their choices and decisions in social settings.

> *[Students] will tell you, […] 'You know what, [the MSPHI clinic] made me realize it's not my fault and what I'm doing with drugs isn't helping me.'* (School Administrator)

IMPROVED SCHOOLING AND LEARNING EXPERIENCES

Aside from improving the health and well-being of student patients, the multi-dimensional support offed by the MSPHI clinics also had indirect impacts on these students' schooling and learning experiences in at least the three following ways:

- Reduced absenteeism
- Greater attentiveness to learning
- Improved school performance

Reduced Absenteeism

A study conducted by Walker and colleagues (2010) examined the effects of school-based health centres in the U.S. on academic outcomes. They revealed a significant increase in school attendance for students who used these health centres compared to non-users. This finding is consistent with that of the current study; there has been a notable reduction in student absenteeism since the opening of MSPHI clinics. As discussed earlier, given the convenient location of the clinic and the flexibility surrounding booking appointments, students who sought primary health care at in-school health clinics missed less school or class time.

> *Before [when] I used to take my daughter to [my] family doctor, she would waste half day or a whole day of school. […] I would never go to an [external] family doctor if I didn't need to, so I would say that this is the best thing that is in school. She doesn't have to leave, she is missing 10-15 minutes [of class] and sometimes if I take an appointment at 8:30am, she is not missing anything.* (Parent)

As further explained by a TDSB central staff member, a child who had, for example, a minor injury could now go straight to the clinic, get the necessary medical attention, and then return to the classroom without the need to be absent from school. Parents appreciated how these in-school health clinics had helped address their child's health needs while minimizing any interruption to their child's learning at school.

> *You know like they are out of the classroom for not long and then they go back. They are not counted as being absent … they are out for maybe half an hour. They are not spending an hour getting ready to go to a doctor, being at the doctor's office, coming back and trying to get into a routine.* (Parent)

> *In a regular doctor's office waiting room, you are probably waiting there for a good hour and a half, two hours, depending. […] Sometimes [with external] doctor's appointments, you can miss a whole day of school. [The student] is not participating in whatever is happening [at school].* (Parent)

In addition to benefiting students who experienced episodic illness or injuries, those with chronic or more serious cases such as high blood pressure, anemia, asthma, or mental health issues, could also have their periodic

monitoring and follow-up done at the in-school health clinic without having to skip school or classes. But more importantly, the fact that their health concerns were addressed in a timely and effective manner reduced the number of sick days required. As testified by a clinic co-ordinator, a girl who had self-harmed herself and dropped out of school due to serious conflicts with her parents and friends, was coming back and attending school regularly after several visits to the school clinic.

> *You could see that this girl now came to school, she continued school, she didn't drop out. […] She continued to go to school, continued to get support, frequent visits. […] When we checked with the vice-principal, she was like, 'No she's fine. She's coming to class, she's doing better in school, she's not having that kind of trouble, if anything she knows there's a place she can come back to and talk.'* (Clinic Co-ordinator)

Another reason for the reduced absenteeism had to do with the fact that MSPHI clinics offered, where necessary, timely and on-site immunization and vaccination for students. Not only did this on-site service help protect students from transmissible diseases; it also fulfilled provincial requirements for immunization schedules, thereby minimizing the need for unnecessary suspension among elementary and secondary school students.

> *We had 50 students that were suspended because they hadn't had their immunization. […] So we knew that November was suspension month. In October [through the MSPHI clinic] we could somehow find a way to do an immunization blitz and get everybody caught up before they get suspended.* (School Administrator)

Greater Attentiveness to Learning

With the diagnosis and management of diverse health concerns, students also made noticeable progress in learning and school behaviours. For instance, some students who were referred to the in-school health clinics because of their learning and behavioural problems were found after assessment to have undetected hearing or visual impairments; and with immediate treatment, their learning attitude and school behaviours changed markedly. As recalled by an MSPHI paediatrician:

> *I remember one particular [case] that was striking was a child with considerable learning and behavioural problems. And after assessment, it was determined that [his ears] were severely impaired, so once I got it fixed, the child was functioning very [high], with no further concerns of learning or behaviour. […] I think he was probably [in] grade 2 or grade 3.* (Paediatrician)

During a focus group interview, a parent talked about the improvement in his son's ability to focus, concentrate, and recall the day's events after being diagnosed and treated with ADHD.

> *He is able to concentrate. We give him that medication right in the morning. He can sit for half an hour. He used to never tell us anything that was going on in the school. Now he is telling [us] what he did in school.* (Parent)

Likewise, a teacher observed impressive gains in her student's concentration abilities after seeking medical attention at the in-school health clinic.

> *His reading grew by leaps and bounds. […] We were all able to do this on site and quickly, which I think was key. […] So for him, […] he was certainly catching up with the reading and the ability to sit still and stay focused.* (Teacher)

It should be noted that these improved school behaviours could also be attributed to the teaching adjustment made by the school staff as a result of the additional health-related knowledge or perspective they gained from the school-based medical professionals (as discussed in the earlier chapter). For instance, a parent noted how input from MSPHI medical staff influenced school staff in adjusting their educational approach to her child, who subsequently improved academically and emotionally.

> *'Okay, we are going to make a plan for your child.' So now, [educators] also changed. Not only parents, true, I'm not the same, but [the educators] change, the child change. I mean, the whole environment needs to change.* (Parent)

Improved School Performance

As a result of increased attentiveness to learning at school among the elementary school student patients, improvements in homework completion and performance (i.e., grades) were noted. As proudly reported by a parent about her son's academic improvement:

> *He got an A for the first time in his past report card whereas before we were happy if we saw Cs. And he had an A and a B, there was a D, but you know what? You got to give and take. He's excelling in his math now.* (Parent)

These observations can be supported by a growing number of studies which reveal that prompt diagnosis and intervention of developmental disorders in children significantly improves IQ levels and successful integration to school (Augimeri et al., 2007; Bailey et al., 2005; Council on Children with Disabilities et al., 2006; Bryson et al., 2003). As described by an MSPHI paediatrician:

> *We diagnose and sort out treatment [for ADHD], and [the students] are doing so much better in school. The teachers are very happy with their behaviour, their performance improved, [and] their grades improved; there [are] many stories like that.* (Paediatrician)

Educators also shared that stemming from such improvements, students exhibited intrinsic pride in their accomplishments, efforts, and progress:

> *Just to see the look on his face every day when I reported that he got all his work done, he was able to finish this. […] And so he was proud of himself; he was successful. (Teacher)*

[A teacher praised a student who used to be academically behind] 'Wow, we can see you read the whole book.' He had a great day; he felt so proud of his own accomplishments. (Teacher)

These findings about the younger students were also apparent among secondary school students who had utilized their in-school health clinic. During focus groups, they described how because of the clinic support they themselves saw improvement in their academic work, as they were better able to concentrate in school, rather than focus on lingering health or personal problems.

HEALTH LITERACY AND SELF-ADVOCACY

From visiting the in-school health clinic, students, especially those from the secondary school panel, became more informed of their health status and acquired a better understanding of their diagnosis. At the same time, they gained more knowledge about the existing health care support system such as its services and programs available in the community.

> *[The in-school health clinic is] the bridge. I think because […] we were building pretty good relationships with people, even in an hour, and again because we were spending time with them that other people weren't willing to spend with them before. […] I kind of explain to them why it's important and sort of get them to buy into that as well. So I think that's a critical role in terms of spending time with patients and help them explore the system and understand what's going on.* (Nurse Practitioner)

The in-school health clinic indeed served as an information hub offering students at the secondary school level with a powerful learning opportunity about health and self-care.

> *This clinic really helps people understand more about how they should take care of themselves and if they should get vaccinated and stuff like that.* (Student)

As well, the in-school health clinics acted as a gateway to promoting health advocacy skills and medical autonomy for adolescents that will be well-served into adulthood.

> *Connecting the health sector to kids directly is hugely important because as they leave us and go off into society, they are going to need to know how to access these things themselves and we know in this community, there's the highest percentage of people without family doctors. We know in this community, there's all kinds of things that indicate the fact that their community by its nature doesn't invoke mental health or general health the way that, let's say a higher income community does. But to break that cycle, I think you got to do it young. And you got to start getting people to start appreciating that it's their health system and their society that's giving them these opportunities.* (School Administrator)

In fact, with the health clinic within their school and with the care and confidentiality offered by the clinic staff, it was found that over time secondary school students began to initiate medical appointments, seek out help, and make follow-up visits on their own. Evidently, there were heightened levels of independence and self-proficiency in managing their own health concerns.

> *It allows independence in the high school student and they are trying to achieve that. But they take responsibility for themselves by coming to the [in-school] clinic when they feel like they need to. They don't have to rely on their parents, for example.* (Nurse Practitioner)

REDUCED MENTAL HEALTH STIGMA

At both the elementary and secondary school levels, stakeholders agreed that the mere presence of in-school health clinics created an awareness and priority for holistic care, thereby reducing mental health stigma among students. Juszczak and colleagues (2003) found that American inner-city adolescent students were 21 times more likely to make mental health related visits to the school-based health centre than to a community health centre network.

> *I think just by being in the school and part of the school board and that, 'this is okay,' and hopefully remove some of that [mental health] stigma and fear.* (Paediatrician)

This is especially the case for the secondary school panel. At NACI, the in-school health clinic was a safe place for students to discuss and explore their mental health issues. As noted earlier, when they made their initial visits to the clinic, they presented themselves with physical symptoms, such as headaches, which were actually manifestations of such underlying emotional issues as stress or anxiety. In other cases, they booked appointments for false or imaginary physical health issues when they intended to seek assistance for psychological health concerns.

> *I think the opportunity to move beyond what is the presenting issue to what is the real issue, … so again, having face time, if you like, with a medical provider has been very important because it revealed, it's not just a headache; it's stress, it's anxiety, it's depression, whatever it may be, you know? But having the time and space to have those conversations and get beyond the immediate presenting issue [reduces the mental health stigma].* (MSPHI Central Staff)

As time progressed, students became comfortable with seeking assistance for their mental health issues, sharing their experiences with peers, and inviting their friends to attend clinic appointments with them. This generated further awareness among secondary school students of the prevalence of mental health issues and the importance of prevention and treatment in a timely manner.

> *The students are coming and they are coming with their friends. I am often not only providing individual counseling but group counseling. What I have noticed is that I may be providing individual counseling to the patients who have come to see me but the friend eventually comes. She attends a few sessions to support her friends and then realizes that maybe she should be coming. That has occurred as well. So I think you know, just by observation and by having a clinic present, it has allowed students to come and demystify some of the stigma.* (Nurse Practitioner)

All in all, the in-school clinic played a significant role in improving the multi-dimensional health and well-being, schooling and learning experiences, health literacy, self-advocacy, and mental health awareness among elementary and secondary school students in high-needs communities. If it were not for accessible and welcoming health care provided by the MSPHI, many of these students would simply "fall through the cracks" and follow a different trajectory.

CHAPTER 6: RIPPLE EFFECTS

- Ripple Effects on Schools
- Ripple Effects on Families

CHAPTER 6: RIPPLE EFFECTS

RIPPLE EFFECTS ON SCHOOL

A series of interviews with school staff reveal that aside from benefitting students, the direct recipients, the MSPHI also generated positive ripple effects on school. Both school principals and staff agreed that they gained at various levels from the MSPHI. These indirect benefits include:

- Provision of health-related knowledge about student well-being
- Psychological relief for school staff
- MSPHI as a supplement to school support services

Provision of Health-related Knowledge about Student Well-being

As noted earlier, with health care providers readily available on school grounds, teachers and school administrators found that they could easily build capacity around understanding of and how to handle students with, for example, behavioural issues. For instance, while teachers and school administrators often encountered students who experienced disruptive behaviours, not all staff were trained to recognize potential underlying health concerns. Through open communications with MSPHI clinic staff within the school building, or at School Support Team meetings in feeder schools, school staff were able to increase their knowledge of medical conditions and awareness of the implications of various behaviours and symptoms.

> *Then you start learning and the next kid comes and you're in that same scenario. You start understanding what it is that made the previous kid healthy and then now you have a knowledge base […] and then you start seeing yourself a pattern of what makes kids healthy.* (School Administrator)

This additional knowledge along with advice from the on-site health provider could also help school staff adjust their teaching strategies for specific students concerned. This was a perspective that school staff had not encountered before. A paediatrician mentioned how the health care professionals could provide at School Support Team meetings medical knowledge on childhood development or the overall health of children, and the effects of certain actions on student reactions.

> *I think … collaboration for the both of us is beneficial. For me, I'm providing medical knowledge about, for example, development or health or just explaining to the teacher how this might affect the child if I do this. If they're not familiar with it already, and if they ask, then I answer. But similarly from a teacher's perspective, I'm learning how they teach and what they need to do for this child in the context of their diagnosis to help them learn and what kind of teaching*

styles they're using. So for me it's very important to learn … how the impact of our opinion may apply in the classroom. (Paediatrician)

This health lens offered by in-school clinic staff helped promote greater interactions and trust between teachers and students. Also, by raising mental health issues at School Support Team meetings, health care providers were able to help reduce the stigma associated with mental health.

> *Yeah I mean even by asking in School Support Team meetings, and sometimes bringing up those issues, and hopefully diffusing the stigma at that time when they're first brought to attention, when the parents are present; it helps. And I think just by being in the school and part of the school board … hopefully remove some of that stigma and fear.* (Paediatrician)

Psychological Relief for School Staff

It was also learned from interviews with school staff that the existence of school-based health clinics could also give them psychological relief, knowing that medical support was readily available for students especially during crisis or emergency situations. For instance, a special education teacher noted how on occasion, the behaviours of some of her students could be escalated to the extent of inducing bodily harm on themselves or other students. In such instances, the teacher was able to calmly take control of the situation, knowing that there would be a quick response and intervention with just a phone call to the in-school clinic. The feeling of being supported in this way provided reassurance and decreased a sense of helplessness among teachers and other school staff.

Having taught in a special education self-contained class, sometimes you get very aggressive children that can hurt another child. I wish the doctor was here every day because I've been able to take a child, for example, that's been scratched in the face. It happened to be the day the pediatrician was here. She knew the child, knew the child's whole background. I had already called the mom to say what had happened. But the paediatrician was able to make a quick phone call to say the eye is not in any danger and no need to go to the walk-in clinic. I think it saves time and resources. (Teacher)

In addition to supporting teachers in crisis situations, the MSPHI clinic was an essential resource for school staff and teachers in diagnosing students' mental health-related issues such as ADHD. The knowledge of having medically trained professionals, who were able to help with assessing risk, understanding developmental concerns, and offering necessary interventions greatly reduced the burden on the school staff. As described by a school administrator:

To have a resource where you can go down and have someone who's trained in the medical field to sort of help assess risk and understand what you're dealing with, so you kind of introduce the kid to the clinic and then you know they're well

looked after right? And sometimes you're surprised that the clinic doesn't do more. But then over the years, you start to realize it's because the clinic has a better handle on the depth of the risk assessment. Sometimes a kid will go down there and the next thing you know, they're in the hospital and then you feel like, 'Okay, they do respond to serious, like they know how to respond to serious issues.' They know how to identify them, respond to them, escalate services and they also know when it's okay. Like when it's time to say to someone, 'You know, look, this kid's okay right now, but keep an eye on this and this and make sure that you do the following.' (School Administrator)

There were also times when teachers and school staff encountered other unexpected concerns such as puberty issues. Without the training, the comfort level or the authority to handle those situations, teachers turned to the in-school health clinic staff knowing that they could immediately provide the necessary support to the student concerned.

My initial experience with the clinic was when one of my grade five female students had a period and she has a dad, and because of the culture, dad wasn't able to have much communication with her about that…. I would love to, but I knew it was not my job and I just went to the clinic and said, 'This is the situation […]'. And they were like, 'Bring her in. We have a nurse here to give her the time,' and they were fantastic with her. And from there, they called in dad and they explained certain things to him and the nurse [practitioner] became her mentor. (Teacher)

It should be noted that this sense of relief was experienced not only by the teachers of the schools which hosted the program; staff from feeder schools were also relieved when they found themselves able to refer their students with serious health concerns to an MSPHI clinic for immediate medical attention. As recalled by a social worker:

For example, I had a child at one of my schools this year who was a refugee kid who didn't have an OHIP card, and the teacher came and said to me that the child had a terrible earache and was really suffering. She had taken him to the hospital and the hospital said it was 500 bucks upfront and we won't see your child. And they didn't have 500 dollars, so a nurse looked into the ear of the child just to be kind and said, 'There is an infection that goes right into the eardrums and once the eardrums burst the child won't be in pain anymore.' So the mother had bandaged his ear very obviously in a way that probably one shouldn't when they have got something like this. So he came to school with this huge bandage on his ear, which is what made it obvious to the teacher who then got a hold of me and said, '[Social worker], isn't there somewhere we could send this kid where he could get his ear looked at?' And that is exactly what we did. We did an emergency connection to the Sprucecourt clinic and he was seen and his eardrum had burst at that point. (Social Worker)

MSPHI as a Supplement to School Support Services

While schools could access professional support services, such as psychological consultants and social workers, their availability was often limited. They were relatively small in number and were required to serve multiple schools at any given time; in other words, their services were spread thin. In addition, these professional support staff were typically inundated with administrative responsibilities, voluminous caseloads, and unpredicted crises to respond to.

> *The needs are huge. […] It was 85 students that were referred to me that I would have provided service to, that came to me with a need. […] So obviously five days in a week, so most days I went to one school. Some days I would go to two schools, planned, and then there were the emergencies that would happen in between there that would draw me from one school to another school or to help somebody else manage a crisis in their school.* (Social Worker)

All these diminished the number of students they could directly and consistently care for. As described by a school principal:

> *I remember quite clearly having kids in front of me that were in deep crisis and I started picking up the phone. And then it was quite shocking how many times nothing happened, like nobody from the [TDSB} was available. Nobody had a resource. The [TDSB] social worker was saying, 'Look I can't get there till Friday.'* (School Administrator)

Furthermore, even if the professional support staff were available, they might not be equipped to help cases with medical implications.

> *And so it's great that TDSB has a lot of support; they have social workers, teachers, the guidance counsellors, principals; they would sit with these kids. They work, but they are also not fully trained. Many times they don't know how they can help the kids.* (Clinic Co-ordinator)

Under these circumstances, the MSPHI was instrumental in supplementing the roles of school professional services, and in helping bridge the gap for timely mental health support for students in need.

In short, the combination of the in-school health clinic with the board's professional support services fostered a well-rounded support system for students to thrive.

> *I now understand so much how under-resourced the whole student mental health system is. […] Waiting time, it's always disastrous. The children and the parents see the person. And at least there [is] some help from the medical [side] for the kids.* (Health Agency)

RIPPLE EFFECTS ON FAMILIES

Aside from the ripple effects on schools, focus group interviews with parents also reveal that as a result of their child supported by the MSPHI clinic, their family also benefitted in multiple ways:

- Improved parents' awareness and knowledge of their child's health concerns
- Capacity building for parents on how to support their child
- Sense of relief for parents
- Improved family dynamics

Improved Parents' Awareness and Knowledge of Their Child's Health Concerns

MSPHI clinics helped raise parents' and caregivers' awareness, acknowledgement, knowledge, and understanding of the issues their children were experiencing. It was learned from interviews that there were times when parents, especially newcomers, were hesitant about or refused the clinic appointment for their child, as they disagreed that their child had issues which warranted medical attention. At times, parents attributed their child's unhealthy behavioural habits to such factors as the school curriculum not being captivating enough, or simply young children's inherently high energy level. While these factors could be true, their beliefs may also be indicative of knowledge gaps or misconceptions about the connections between a child's behavioural manifestations at school in relation to the child's social and emotional development.

Upon explanation and the persistent but sensitive persuasion of clinic co-ordinators, increasingly it was observed that parents became more comfortable with visiting the clinic and were more receptive to the help offered for their child. Further, within school, health care providers were afforded educators' perspectives regarding the child's school experience; this provided them with rich and accurate insight into their child's behaviour, which helped parents to become more receptive to their professional advice.

During focus groups, some parents spoke gratefully that they would not otherwise have realized that their child had a health concern affecting learning. A parent recalled how she previously dismissed her child's behaviour as disobedience until meeting with a MSPHI health care provider who diagnosed her child with ADHD:

> *As a child back home, when there were kids who were jumping or not paying attention or doing what my son does, for us, it is a naughty child. So when my son did that, I only thought [he] was a naughty child. I would never think to take him to the family doctor and would never have found out that he has ADHD. When his*

> *principal referred us, I thought, 'Why should I go to the clinic? What clinic is this? What's different than the family doctor?' When I came and [the MSPHI doctor] explained […] to me his behaviour and from the questions and answers she found that he has ADHD. This is the first time that I could know.* (Parent)

Having utilized the MSPHI services, parents became more knowledgeable about different health indicators or symptoms they could recognize in their children. One parent expressed that she received useful information about her daughter from the in-school health care provider:

> *[My daughter] was having trouble and then I visited [the MSPHI clinic]. At first, it was helpful for me. The doctor told me so many things about her eye check, check her vision, all about health. He said she was healthy. It was very [beneficial] for me. I went there and right away I got so many things for her about health issues.* (Parent)

The School Support Team meetings, which were attended by parents, school staff, and medical partners, provided a means of communication among all three parties. This offered each party with an opportunity to shed light and collaborate on diverse issues. For example, in one meeting, a concern was raised regarding a student with anxiety, and with further examination revealed that she had a developmental disorder (i.e., autism). Upon diagnosis at the MSPHI clinic, the mother of the child expressed gratitude to the developmental paediatrician for helping her to understand the root cause of her child's challenges, and for the support given to her child through resources and therapy.

In another case, a parent who was resistant to getting help for his child, not only gained a better understanding of his child's unmet health needs; but, also became more proactively engaged in learning about and leveraging support services in the community:

> *The doctors also took a lot of time explaining [the health condition] to [the father]. And now the dad comes to us consistently to ask how he can get additional support. Now he's saying, 'Okay my child has autism. How do I get supportive services? How do I get disability tax credit? Okay, so I want information on this.' So he comes back now for that. So it was a big thing, big change for him, in order to go from that state where he is in total denial, totally not accepting this, to now accepting it and seeing, 'Okay now my child has this and there are people here to help, I need to take it, how do I take it?'* (Clinic Co-ordinator)

Capacity Building on How to Support Their Child

In addition to their child's receiving direct medical support, the MSPHI provided parents with relevant information resources (e.g., websites and contact information) and referrals to community agencies to further assist with their child's health needs. All these laid the

foundation for building their capacity to support their child in a proactive and collaborative manner.

> *Basically I need to know the information. Why I need to go. Where can I get the treatment? So in that context, this [in-school] clinic means too much because I didn't know where I go […] Thanks to this clinic, they help people know where to go, how to get treatment.* (Parent)

For instance, when students were placed on wait lists to be treated by specialists, parents were encouraged to perform therapy sessions with their children in the meantime. Some health care providers recommended educational books and strategies for parents to therapeutically engage children in the home environment. Improvements were visible as a result of these efforts.

> *I recommended some books and the mother tried to sort of do her own therapy with the child at home […] and we've already been seeing some great improvements around that, just in understanding a little bit more where those challenges are coming from.* (Developmental Paediatrician)

Due to the increased awareness and knowledge afforded by the MSPHI clinics, parents shared their experiences and what they had learned with other parents who experienced similar circumstances. This was further evidence of capacity building that extended into the community. In fact, this ripple effect prompted some parents who had observed concerning symptoms and behaviours in other children to take action by, for example, bringing such observations to the attention of school staff and parents involved. They were also willing to support and share their increased health knowledge and own experience with other parents.

> *I see a lot of [mental health concerns] now that I am more conscious about the things around me. I even spoke to a parent […] who didn't get a diagnosis or report from the [external] doctor. I have seen her daughter, and when she texted me that her daughter has autism, immediately, I volunteered for her to come and see me and speak together. And I see another mother who is struggling in group play, you know, with [her] son who I believe has a problem. I spoke to the teacher, a special educator, saying 'I think he has a problem. In case this mother opens up to you, I would like you to tell her that I would like to speak to her about it,' because I have already experienced this with my two other children.* (Parent)

Psychological Relief for Parents

Provision of accessible health care through schools also improved parents' and caregivers' psycho-emotional states. For instance, they were less stressed because they did not have to take time off work to bring their child to medical appointments. Instead, as they walked their child to school in the morning, they could simultaneously visit the clinic. This reduced the burden placed on parents who often worked multiple jobs, or had to take care of large families.

Also, as expected, parents were initially in distress and worried about the health and well-being of their child. However, after sitting through several appointments with MSPHI health care providers, whom they found supportive and personable when explaining diagnoses or treatment options, parents were able to enjoy a sense of comfort and trust, which helped reduce their stress.

> *[The MSPHI doctor] gave me comfort that [my son] is very low to mild [autism]. So he said he could be changed, so I am hoping for that. Now, I have no stress, no worry at all; I feel much better. So last November […] I felt like I lost something. And now, I am back on track with everything. [The doctor] explained to me and I have been there [for] every appointment with my son so I see; I am feeling comfortable.* (Parent)

Parents also appreciated the alternative treatment options offered by MSPHI medical practitioners regarding their child's health challenges. One parent described how relieved she was when the MSPHI medical staff was not forcing her child to take medication after being diagnosed with ADHD. This gave parents a sense of control over their child's health.

> *As soon as [the MSPHI paediatrician] told me that she had ADHD, I instantly got fearful because of the drugs. Right away, I was like, 'You're going to put her on drugs and I don't want my child to be a zombie.' The doctor looked at me and said, 'If you're not comfortable with her being on meds, I will not make you put her on meds.' And that is what I'm looking for, whereas other doctors are quick to push pills and be like, 'Nope, she has to be on meds.'* (Parent)

More importantly, families developed a sense of relief and gratitude from witnessing the positive changes in their child after being treated by the in-school health clinics. As recalled by a teacher, a family was positively affected when they saw how their child, who had been diagnosed and treated through an MSPHI clinic with ADHD, was finally able to "bloom with confidence in his reading and his ability to finish work".

> *He stopped wandering, he stopped drumming, he stopped being an agitator and just to see the look on his face every day when I reported that he got all his work done, he was able to finish this; his reading grew by leaps and bounds. And so he was proud of himself, he was successful, his mother was very proud because she was trying to make changes for her children and Grandma was very involved in the family too and she was proud as well.* (Teacher)

Improved Family Dynamics

Seeking care through the MSPHI also had a ripple effect on relationships between parent and child. To illustrate, children with developmental health concerns (e.g., ADHD) often required medication to manage their symptoms. The in-school clinic provided the necessary medical

prescriptions and management strategies in order for students to better concentrate at school and at home. Improvements were observed by their families, indicating that not only were they able to focus more in school, but they also became more communicative with family members about their day. This improved family dynamics.

> *We started medication and the family came back very, very happy. […] The child is happier and the family is happier. [...] I really see the positive impact on the family and they've shared that more than once.* (Paediatrician)

Other than medication and management strategies, the improved parent-child relationships also had to do with the parenting skills parents acquired from MSPHI clinic staff. The latter, on some occasions, showed parents how to effectively communicate and interact with their children. Some parents themselves admitted that before visiting the MSPHI clinic, their child's poor academic performance or disruptive behaviours often triggered their negative reactions, including yelling, grounding, and outbursts of frustration. But after applying the more healthy and supportive parenting styles acquired from the clinic staff, parents noticed more positive responses from their children. For example, according to one parent, the MSPHI health care professionals encouraged her to communicate with her child with eye contact and praises. Parents also learned to listen more attentively and to control their anger, voice, and tone when speaking to their children. Consequently, parents found themselves being more able to support and engage their children more positively at home.

> *I am treating him differently now. I am controlling my anger. I am talking to him more. I am praising [him] more. So I did see changes at home when I started to act differently, after I got to know what's going on with him and that he has the ADHD.* (Parent)

Also, owing to improved parenting styles, another parent noticed that compared to before, their child was more willing to share their progress notes the teacher wrote for them. This further promoted open communication and a positive relationship between parent and child:

> *When [the teacher wrote] negative things, he didn't want me to see that notebook and he was scared. […] When I see bad things [now], I don't do as I did before right away […] He's not scared about my reaction anymore because even when he's not doing [good] now, I am saying, 'Oh that makes me sad.' I am talking more. Sometimes he still does bad, but he isn't scared.* (Parent)

CHAPTER 7: COST EFFECTIVENESS

- Cost Effectiveness from the Health Care Perspective
- Cost Effectiveness from the Education Perspective
- Cost Effectiveness from the Societal Perspective

CHAPTER 7: COST-EFFECTIVENESS

Data collected from multiple stakeholder groups over the four years of evaluation have demonstrated that the MSPHI is, not only an effective, but also a cost-effective paediatric health care model, especially for high priority communities. It is understood that quantifying the cost-effectiveness of any health care model is difficult, as explained by one stakeholder:

> *In terms of tracking the effectiveness of the clinics, that is a challenge because we can't provide statistics on the real issues as much as the presenting issues. […] For us to understand the effectiveness of the school-based clinics, we've got to understand which illnesses, which medical problems never happened because they were there. But that is very difficult to measure in terms of cost-effectiveness. How much does something that never happened cost? I think it is really, really difficult to do, but I think that is perhaps something which is a broader issue in the medical field.* (MSPHI Central Staff)

While it is beyond the scope of this study to quantify the economic benefits of the MSPHI, solid qualitative data gathered from different stakeholder groups indicate, unequivocally, that returns on investment in this education-health partnership in paediatric care are not only favourable but can potentially be manifold. The cost-benefit of the MSPHI can be examined from at least three perspectives:

- Health care
- Educational gains
- Societal benefits

COST EFFECTIVENESS FROM THE HEALTH CARE PERSPECTIVE

The cost-efficiency of the MSPHI can be attributed to the following three factors:

- Relatively small financial investment
- High efficiency in paediatric care
- Cost savings to the health care system

Relatively Small Financial Investment

Due to the three-way partnership between the TDSB, the TFSS, and health care agencies, much of the implementation cost of the MSPHI was absorbed by existing resources of these various partners. In other words, the operating cost for running an in-school health clinic could be

minimized. For instance, the space for the clinic was within an existing school property, such as a vacant classroom, shared by a local school; no rental expenses were incurred. The basic medical equipment and supplies required, including vaccines, were donated by the health care partners, while the services offered by the MSPHI health care providers were either OHIP-covered (in the case of general physicians, paediatricians, or specialists from hospitals) or salary-based (in the case of nurse practitioners or general physicians from CHCs). As mentioned earlier, even for non-insured students such as refugee claimants, funding was afforded by Local Health Integration Networks (LHIN) or occasional special funds generated by the affiliated hospital.

The only additional expenditures entailed were for the initial setup, ongoing maintenance, and the remuneration for a part-time clinic co-ordinator. The cost associated with setting up a clinic ranged from $7,000 to $10,000, which involved converting a classroom into a waiting room (where applicable) and examination room as well as maintenance expenses (for example, supplies and printing). The annual salary for a part-time clinic co-ordinator to operate and support two MSPHI clinics (one day each week per clinic) was approximately $30,000. For the four MSPHI clinics under this study, the combined yearly cost for the clinic co-ordinators and associated administration was approximately $70,000, which had to be raised from the community by the TFSS.

High Efficiency in Paediatric Care

Despite the relatively low investment, the quality of health care had not been shortchanged. On the contrary, as discussed in Chapter 4 about the added values of the MSPHI, the paediatric care offered for inner-city students was of high efficacy and efficiency. For instance, by reducing the multiple accessibility barriers encountered by vulnerable populations, the MSPHI was able to reach out every year to hundreds of inner-city students, whose physical and/or mental health concerns would otherwise be unmet. In fact, CHC stakeholders acknowledged that the MSPHI, especially the secondary school clinic, allowed them to meet their health care mandate and strategic direction to serve youth who previously underutilized their community-based services. By partnering with the MSPHI, they were able to address the underrepresentation of youth in their patient roster by providing medical attention within the school building.

> *I mean in many cases for community centres, not all of us have success in serving young people. […] And so this […] helps to access, to reach the young people, using our family care service in a very effective manner.* (Health Care Agency)

Furthermore, with school as the location, manageable caseloads, focus on paediatric care, patient-centred approach, as well as cross-sectoral (with local schools) and intra-sectoral (among medical professionals) collaborations, MSPHI clinics were able to deliver timely,

thorough, comprehensive, socio-culturally sensitive, and ultimately efficient medical attention and preventive care to children with health needs.

Cost-savings to the Health Care System

Cost savings to the health care system can be considered at two levels: immediate and long-term. At the immediate level, the MSPHI was an affordable and effective primary health care alternative to relieve the more costly hospital and emergency care for many of the episodic or even chronic health issues. For instance, a secondary school principal pointed out how the in-school health clinic was critical in providing timely and first-rate medical attention under urgent circumstances, which averted an unnecessary burden to the health care system.

> *It's also about […] the health care system. We would probably [dial] 911 because we don't know whether there is a concussion or what it was, so it's also about utilization of resources in an appropriate way. So we got to see a nurse practitioner [at the in-school health clinic], and we had it dealt with. Whereas if we had called 911, we would have been waiting in Emergency and all of those services would have been utilized that we don't know whether or not we should be utilizing them or not.* (School Administrator)

Literature in the United States also indicates how their school-based health centres in high-needs neighbourhoods could help reduce health-related inequities. For example, Webber and others (2003) found that students enrolled in a school-based health center (SBHC) in the Bronx, New York, visited the hospital emergency room half as often as students who attended a school without an SBHC. Similar findings were revealed for students with chronic respiratory illnesses; asthmatic students without access to a SBHC were twice as likely to be hospitalized as students who attended a school with an SBHC (Horton & Lima-Negron, 2009).

At the long-term cost-saving level, the MSPHI could be viewed as an "upstream approach". It delivered first-contact care for early intervention, health promotion as well as preventative and therapeutic interventions to students at a younger age. It also addressed the root cause of the problem, changing their physical and mental health trajectories, and thereby reducing the risk, acceleration, and burden of health disparities in an already marginalized population. By comparison, the "downstream approach" is acquainted with the consequences of health problems at a more advanced stage – which imposes a much heavier burden on the health care system's finances and resources.

> *Having good and accessible primary care is key because primary care is a lot cheaper than emergency care or specialist care. So the more you can do upfront to keep people healthy, […] the less you have to treat illness.*
> (Health Care Agency)

This upstream versus downstream approach is particularly relevant for vulnerable communities, as many of the children had unmet physical and psychological health needs due to the multiple social and environmental determinants discussed earlier. These students often "slipped through the health care cracks" with their health conditions becoming increasingly more complex and more costly (to the health system) to manage down the road. As noted by a teacher:

> *We've seen kids sick for days. […] And they end up in Emergency because something could have been treated earlier on with a simple prescription or whatever so it would save people going to Emergency.* (Teacher)

On the other hand, given the higher accessibility, quality, and efficiency of care afforded by the MSPHI, more at-risk students could receive timely diagnoses and treatment, as well as preventive care early on. Stakeholders agreed that by intervening with problematic health and behaviour as early as possible, imminent and future cost-effectiveness would surface.

> *If you can identify issues with [young] children […] that may have an impact on behaviour mental health […] If you can deal with them and identify those issues when the kid is [young], [it would be] way more cost effective than trying to deal with someone in grade twelve and, you know, failing.* (Health Care Agency)

Another stakeholder suggested that even for secondary school students, taking preventative action during adolescence through health education is still cost-effective as it shapes future decision-making, thereby mitigating unnecessary burden to the health care system and widening of health disparities.

> *If we can help [adolescents] to find ways of coping with their own stress, with their own issues and challenges, then we can support them to make better choices. […] If we can support them to make healthy life choices, to eat well, to exercise regularly, to learn coping strategies, how to self-regulate and be resilient down the way, they may not need to seek medical attention. […] The cost on the [health care] system, on everybody, is going to be less.* (TDSB Central Staff)

Considering that the financial burden of health care continues to grow, the MSPHI can be a cost-effective and critical strategy. In-school health clinics can play a complementary role in restraining rising health care costs. While objective data is necessary to definitively determine the short and long-term cost-effectiveness of the MSPHI, past and present evaluations maintain that in-school health clinics improve health outcomes while being economically responsible.

> *If you can get them utilizing those clinics when they are healthy or healthier or at the very beginning of an illness, it's going to be far less expensive at that moment and it is also going to save the system a lot more money over the long-term. […]*

The sooner you can deal with [health issues], the more upfront you deal with them, the less expensive it is for the system overall. (Health Care Agency)

COST EFFECTIVENESS FROM THE EDUCATION PERSPECTIVE

One should be reminded that the cost-effectiveness of the MSPHI is broader than reduction of health care burden. As a measure to reduce inequity in health outcomes, the MSPHI also has the cost benefits of potentially reducing short- and long-term educational costs associated with, for example, the need for special education or additional professional supports such as social workers and school psychologists. Owing to the "upstream approach" of the MSPHI, there were cost-effective outputs garnered by the school community as well. For instance, as examined in Chapters 5 and 6, by identifying the prevalence of developmental and behavioural health needs of students as early as possible, school staff were uniquely positioned to promptly integrate the recommendations of MSPHI health care professionals and make appropriate educational modifications; what would otherwise span two to three years in the community, could take place within the same academic year as a result of the MSPHI. Administrators were further able to support students by appropriately allocating necessary services and human resources.

We really can't put a cost to it because we're talking about a child. We're talking about [children] who have been running around in the classroom, not able to sit down, not able to focus; the teacher doesn't know what to do with them […] Now we treat [these children accordingly], we counsel them, we advise the school on what we think is right. We try and bridge that, and so it can't really be seen in the short-term, it has to be seen in the long term, […] because this is improving their ability in the classroom. Many times we were just talking, and we'd have the initial form that the teacher has filled [about the referred students], 'Walking around in class? Yes. Not paying attention? Yes. Fidgeting, poor academic performance? Yes'. And then after some time [at the in-school clinic], we see that all that has become 'No'. (Clinic Co-ordinator)

COST EFFECTIVENESS FROM THE SOCIETAL PERSPECTIVE

Although the topic of cost-effectiveness from early health intervention has not yet been investigated in Canada, previous analyses of this nature in the United States may shed light on this area. For youth with limited access to health care, Karoly and colleagues (2005) found that investing in this population was associated with better societal outcomes associated with, for example:

- Higher graduation rates from high school and college
- Higher income earnings
- Greater labour productivity during adulthood
- Lower rates of welfare dependency
- Lower rates of delinquency

James Heckman, the 2000 Nobel Laureate in Economics, further stressed that investing in the socio-emotional well-being, including the mental health of children living in poverty, has a superior positive impact on the economy than any other economic national investment (Cunha & Heckman, 2009). Recent literature has documented that children with weaker social competence in kindergarten were more likely not to graduate from high school, and to abuse drugs and alcohol, rely on public housing, be held in juvenile detention or be arrested as adults (Jones et al., 2015). More specifically, a cost benefit analysis conducted by Heckman and colleagues revealed that every dollar invested at age four for disadvantaged children returned between $60 and $300 by age 65. Among this sample, they also showed a pronounced decrease in crime, unemployment, welfare, obesity, and heart disease indicators.

> *… investing in actions that aim to reduce health inequalities may also be economically justifiable, insofar as improving the health status of currently disadvantaged individuals and groups would enable them to pursue more fully their human, economic and social potentials, and in doing so mitigate (in part or in full) the initial costs of those interventions.* (Ball et al., 2009)

In marshalling this evidence, initiatives such as the MSPHI are critical for early intervention to improve not only the health outcome, but also the educational trajectories as well as the social outcome of students in high-needs communities.

CHAPTER 8: CONCLUSION

- Key Findings and Messages
- Conditions for Success and Sustainability
- Final Anecdote

CHAPTER 8: CONCLUSION

KEY FINDINGS AND MESSAGES

Research evidence from this multi-phase evaluation shows that breaking the silos between health and education works, at least at the local school level, for the betterment of students' well-being and learning. This is particularly the case for inner-city students who often face adverse determinants of health along with accessibility barriers to medical services. As an innovative, integrative approach, the MSPHI was able to offer more accessible, timely, thorough, and holistic health care support for students from underserved communities, who might have otherwise slipped through the existing medical service cracks.

With school as a convenient location, many tangible accessibility barriers (e.g., transportation, cost, and time) encountered by low-income families could be alleviated, allowing more inner-city students to have their health problems attended to without delays. Also, with school as a familiar setting, many newcomer parents, caregivers, and children would feel at ease and secure to seek medical support from an in-school health clinic vis-à-vis a less familiar or intimidating environment of a typical medical clinic or hospital, which was often a perceived barrier to health care.

Furthermore, having educators and health care providers working under one roof, school staff were likely to be more proactive in identifying and referring students with presenting health symptoms or issues to the in-school clinic for medical attention. At the same time, with their practice inside the school building, medical professionals could have access to academic information about their student patients for more precise diagnosis and treatment. As well, with regular opportunities to interact with each other inside the school, both educators and health care professionals gained reciprocally in enriching their understanding of high-risk students' needs from each other's perspective. As such, both the educational and health needs of the students could be supported more sensitively and effectively.

Aside from having school as the access point for health care, this study also reveals that the types of health care partners secured by the MSPHI were also critical in ensuring the students' health needs were met in a timely, comprehensive, caring, and consistent manner. For instance, at three of the MSPHI sites, the patient-centred and holistic approach adopted by their respective partners (i.e., CHCs), offered a suite of primary and social care services that benefited not only the student patients but also their families in improving, for example, some of their home conditions. At the hospital based-model site, with a special paediatric team offering weekly dedicated time to serve inner-city students within the school setting, a roster of medical professionals were in place to provide medical and specialized support in a thorough

and expedited fashion, resulting in reduced wait times for such services as developmental assessments and treatment from two or three years to within the same academic year.

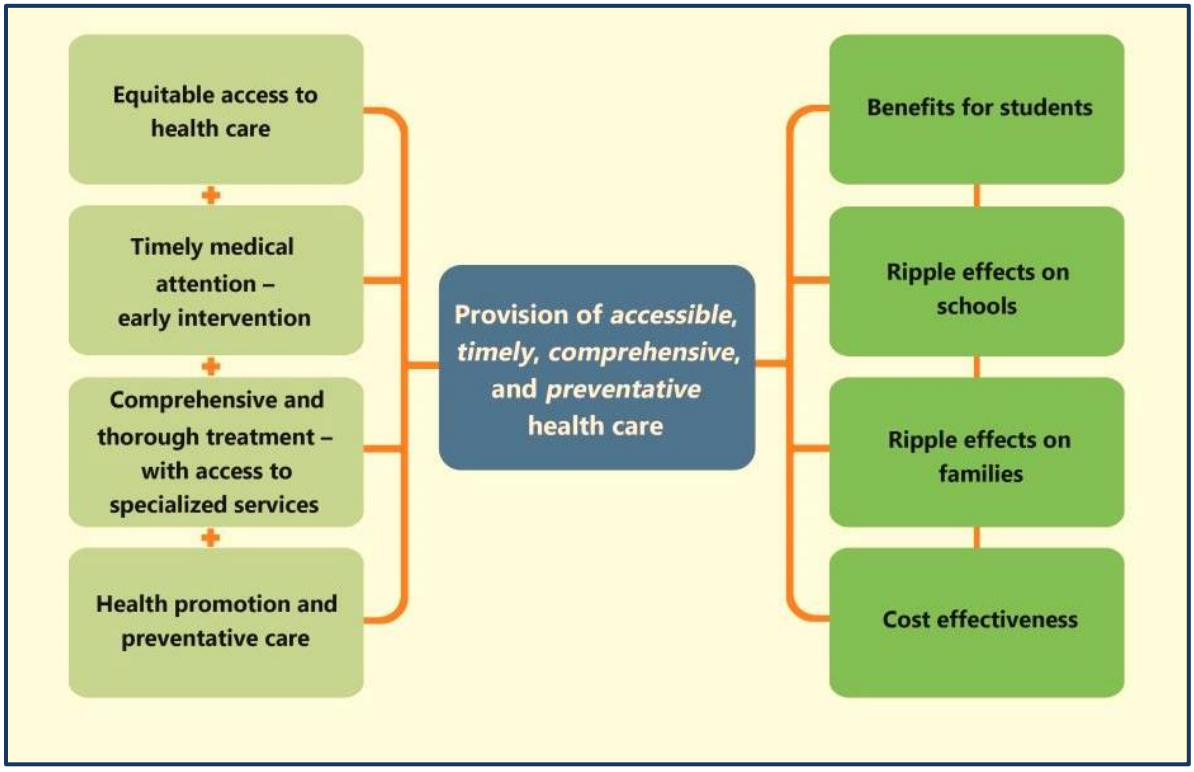
Having observed the MSPHI's evolvement since its inception, this study also noted two marked shifts in its service over time. First, while the students being served by these in-school health clinics during their first year of operation were mainly from the host schools, the subsequent years witnessed fast growing numbers of referrals from their feeder schools.[5] In other words, more students from the local communities could also benefit from the MSPHI service. The second important shift has to do with the fact that not only has the MSPHI fulfilled its original intent of primarily serving the physical health needs of students, but it has also expanded its program goals over the years to support students with mental health concerns. In fact, issues related to developmental, behavioural, psychological or emotional well-being combined became the largest share of presenting issues addressed by these in-school health clinics in recent years. This expanded function has made the MSPHI a viable strategy for addressing student mental health needs and reducing the stigma associated with it, which has indeed been pointed out by many educators as the number one health concern in school.

Also, according to the cumulative research evidence, while there is currently only one secondary school in-school health clinic, the MSPHI approach has proven to be noticeably effective for the adolescent population. At this secondary school clinic, many students' sensitive issues related to, for example, emotional or sexual health were attended with strict confidentiality – also a key concern when they seek health care support. Given the growing level of stress, anxiety and other related issues along with the heightened concern for privacy during adolescence, it is recommended that this type of in-school health initiative be considered as an alternative mental health solution for more secondary schools across the city.

All in all, as illustrated in Figure 18, owing to the added values generated by the MSPHI over the existing health care services, not only did inner-city students gain in multiple ways, but there were also positive ripple effects on their schools and families, as well as short- and long-term cost-effectiveness and synergistic benefits for both the health and education sectors.

[5] It should be noted that this shift occurred at the clinics in the elementary school panel but not the secondary school panel. For the latter, the privacy and confidentiality issue is an important concern for adolescents that they would be willing to seek medical help from their own school but not from another school.

Figure 18: Added Values and Impacts of MSPHI



Finally, it should be reminded that the success and sustainability of the MSPHI rely on the existence of a number of conditions that will be highlighted in the final section of this report.

CONDITIONS FOR SUCCESS AND SUSTAINABILITY

Both the efficacy and cost-effectiveness of MSPHI are heavily contingent upon a number of factors. In-depth discussions with stakeholders in numerous focus groups have continued to corroborate the several conditions identified in the Phase II report for its success and sustainability. These conditions include:

1. Availability of suitable school sites
2. Availability of health care partners
3. Support from school administrators and staff
4. Clinic co-ordinators as a bridge for success
5. Central co-ordination and research support
6. Sustainable funding and support

1. Availability of Suitable School Sites

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

- Location – According to this four-phase evaluation, in-school health clinics would benefit priority communities the most, where families are more likely to experience adverse determinants of health including 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 level of need 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 is needed to be converted into a simple health care clinic.

2. Availability of Health Care Partners

One of the major pillars of the MSPHI is the support of local health care delivery agencies, such as a Community Health Centre or a nearby hospital. These agencies have thus far provided health care professionals as well as medical equipment and supplies such as vaccinations to support the operations of in-school health clinics. Hence, another key condition for the success of the MSPHI is the availability of health care partners that are also interested in integrative and

holistic approaches to health care, are sensitive to the health inequity issues, and are able and willing to delegate their medical staff to work at school sites on a weekly basis.

It was also learned in the past four years of evaluation that staff turnover was inevitable and might temporarily interrupt the flow of operations of the affected clinic or the rapport already built between particular health care providers and students and/or families. Hence, it is crucial to have partners that are agency-based, instead of independent (i.e., not affiliated with an institution) medical practices. With the roster of medical staff afforded by the partnering agencies, potential discontinuity of service could at least be minimized.

Furthermore, the advantage of having health care agencies as partners can, as discussed earlier, help facilitate the provision and referral of specialized services – such as developmental paediatricians, mental health professionals, or related counsellors. These connections with medical specialists and other pertinent social supports have been a significant added value for the MSPHI to offer timely, thorough, comprehensive, and holistic health care services desperately needed by students in vulnerable communities.

3. Support from School Administrators and Staff

Findings from previous case studies and current research show 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 co-ordinator 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 MSPHI site, school principals from the host and feeder schools facilitated the participation of MSPHI health care providers in their School Support 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 students 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. However, as pointed out by an MSPHI central staff member, continuous efforts are needed to raise the awareness of school staff, especially those who are new or are from feeder schools, to sustain continued utilization and growth of the clinic.

> *I think that the involvement of school staff is really valuable, but I think even in a particular school you can have different levels of involvement from different people. Certain teachers will be aware of and maybe make referrals and so on,*

and others will perhaps not. Again, it comes down to having the time, perhaps to spend time within the schools, and to educate and to raise awareness and so on. (MSPHI Central Staff)

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 could enable more students in need to receive timely and proper care. In addition, professional support staff, such as school psychologists and social workers, have also worked closely with MSPHI clinic staff to ensure that the students were getting the care they needed.

4. Clinic Co-ordinators as a Bridge for Success

It was found throughout the four years of evaluation, that clinic co-ordinators are instrumental to the effectiveness of the MSPHI. For instance, aside from their administrative role (see Chapter 3) to align clinic operations so that the health care providers could focus on attending the student patients, clinic co-ordinators were also responsible for liaising and facilitating effective communications between school staff and medical partners, as well as outreach and promoting clinic services to parents, the community, and neighbouring schools.

Apart from the abovementioned official duties, what made clinic co-ordinators an important element to the success of the MSPHI was their passion to assure the health needs of students were addressed, their dedication to ensure the MSPHI would be a success, and their unwavering commitment and effort towards this initiative. In fact, clinic co-ordinators saw themselves playing different roles – "ambassadors" for the MSPHI, advocates and/or advisors for students and families, and cultural conduits between families and medical professionals.

For instance, clinic co-ordinators took it as their responsibility to assure the clinics' atmosphere was welcoming and culturally sensitive so that students and/or parents could have a positive experience. Indeed, it was found that the dedicated, genuine, and caring character of the clinic co-ordinators was key to creating a safe, trusting, and non-judgemental environment. Moreover, they offered language support for families who needed assistance in understanding health care providers' instructions, in applying for health care insurance, and/or in navigating the health care system. Also, they initiated dialogue with students and/or families to increase acknowledgement and understanding of health concerns, especially among newcomers who were initially resistant. In short, their attitude and devotion were critical in raising awareness of the MSPHI service, educating about students' health needs, and creating an image of approachability among schools, families, and communities. As a matter of fact, the growing demands for MSPHI services at different school sites or communities could be attributed largely to the outreach, education, promotion, and public relations efforts of clinic co-ordinators.

Furthermore, it was also learned that clinic co-ordinators made conscious efforts to achieve optimal utilization of MSPHI services beyond scheduling appointments. Given their medical knowledge as International Medical Graduates (IMG), they also triaged, and where necessary, referred cases to ensure all the appointments were scheduled appropriately and efficiently. Additionally, some would go the extra mile to make sure secondary school students who had been referred for the first time or had made the appointment attended the clinic by, for example, visiting the classrooms and accompanying the students to the clinic.

> *There's a lot of apprehension, and especially at [secondary school], there's a lot of forgetting because they're teenage kids so we have to constantly look after them and you can say it's a challenge too because you can't go to the parent route. We have to go to them, so we really have to encourage them to somehow come. There have been times where I've actually gone to the classroom myself.* (Clinic Co-ordinator)

Similarly, for the elementary school panel, clinic co-ordinators would diligently follow up – often during evenings or weekends – to remind parents of the appointments for their child, or to reschedule with other parents to fill in no-show bookings. All these extra efforts were to ensure that the students would receive the health care that they needed promptly, and that the clinic hours and resources would be fully utilized. Both school administrators and the MSPHI health providers indeed acknowledged that because of the extended follow-up and rescheduling on the part of the clinic co-ordinators, the number of vacant bookings were minimized.

5. Central Co-ordination and Research Support

Since its inception, the MSPHI has had its central office under the TFSS. The latter was responsible for raising funds to cover the cost of clinic co-ordinators and associated administration, securing commitments for the medical staffing, and overseeing all the operational requirements with the school board, including business planning, promotion, reporting, program management, hiring and overseeing clinic co-ordinators, and maintaining 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 co-ordination and support is essential.

Aside from the need for co-ordinated central support, ongoing research and evaluation has also helped inform and shape this relatively new school-based integrated health service delivery initiative. These research and evaluation endeavours have been instrumental not only for identifying areas of needs for ongoing program improvement and for determining immediate and long-term impacts, but also for securing the funds and support necessary to sustain and

expand the program. Furthermore, it provides evidential information for potential replication in other high priority communities.

6. 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. As discussed earlier, the MSPHI is a cost-effective paediatric health care model with literally no expenditures required for space rental or health care services rendered through these in-school clinics. The only funds entailed were the relatively small financial commitments for the start-up costs of a new clinic and the salaries for the clinic co-ordinator positions. Given the clinic co-ordinators' instrumental roles and invaluable contributions to the effectiveness of the MSPHI, sustainable funding for this position is a critical condition for its long-term success. As pointed out by a TDSB senior staff member:

> *The clinic co-ordinator position is great. It's a great concept we developed […] It's just now a sustainability issue around cost. So if the Ministry, if the City, if the medical world, everybody can put their heads together and figure out a way to sustain this, then fantastic, that's one of the challenges we have of sustaining the cost of this [position], that's the only negative piece about it. Everything else is fantastic.* (TDSB Executive)

Literature from the United States also points out that successful school-based health clinics require sustainable funding from more than one source or 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 Long-term Care, 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, education, and social service systems.

FINAL ANECDOTE

In conclusion, the following anecdote recounted by an MSPHI clinic staff is quoted. This story exemplifies the functionality of the MSPHI with its inter- and intra-sectoral partnerships' ability, which allowed a refugee student with no OHIP coverage to be saved from permanent blindness. The collaborations involved the support of a school staff member (in this case, the school's guidance counsellor), the dedication of the in-school health clinic staff (both the clinic co-ordinator and the nurse practitioner), the financial support of the MSPHI health partner (the associated CHC) to pay for the consultation by a specialist (an ophthalmologist) and the expensive surgical procedures for one of his eyes, and a pro bono surgical service offered for the other eye. As the MSPHI was able to aid this young man in a timely fashion, not only was his vision restored, but the trajectories of his education and livelihood were altered positively.

> *Recently I [Clinic Co-ordinator] was approached by a [school's] guidance counsellor […] 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 [the cost]. The guidance counsellor accompanied him to the [ophthalmologist] 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 Co-ordinator)

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APPENDICES

- Appendix A: Interview Protocol for TDSB Central Staff
- Appendix B: Interview Protocol for School Administrators
- Appendix C: Interview Protocol for Teachers
- Appendix D: Interview Protocol for Parents and Caregivers
- Appendix E: Interview Protocol for Elementary Students
- Appendix F: Interview Protocol for Secondary Students
- Appendix G: Interview Protocol for MSPHI Central Staff
- Appendix H: Interview Protocol for Clinic Co-ordinators
- Appendix I: Interview Protocol for Health care Providers
- Appendix J: Interview Protocol for Health Care Agency