

Nourishing Young Minds

June 2012



"The School Breakfast Program is a miracle of good public policy. It not only reduces hunger, but it has a range of other positive outcomes that advance key national priorities. The positive impact of the program on student achievement, health and well-being is well documented in an extensive body of research."

Issue Brief regarding the U.S. Child Nutrition Reauthorization (2010)

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Executive Summary

Student Nutrition Programs (SNPs) in Toronto are snack and meal programs provided to children and youth in schools or community-based locations by dedicated volunteers. The programs are designed to meet provincial standards, but are tailored to meet local needs. Funding for the programs comes from a variety of sources, including government grants, parental contributions, local fundraising, and community donations. In the school year 2011/12, the City of Toronto invested approximately \$3.8 million towards the operation of 668 local SNPs operating in 449 school communities reaching 132,837 students.

While the municipal investment in SNPs in Toronto has grown by 52% since 2005, the number of students participating in SNPs has grown by 86%. Yet the need to add additional programs to feed more students increases steadily. Although the City has invested generously in this program, the remarkable growth in the program (both in terms of the number of schools which need programs and in terms of the number of participating students within these schools) has stretched the available funding to the point where programs are now very vulnerable. Many local programs face numerous challenges, including inadequate funding and food storage, preparation and serving infrastructure. At the same time, a growing body of evidence internationally and in Toronto indicates that SNPs play a vital role in improving student health, learning and behavioural outcomes. The desire to strengthen SNPs to deliver health and education benefits more sustainably and to more students, prompted the Board of Health to request the Medical Officer of Health to conduct a collaborative review with the partners who oversee the program in Toronto.

This report comes at a time of mounting fiscal pressures within all levels of government and the global economy. Hence, the purpose of this review is to identify ways the City of Toronto can optimize its current investment in Toronto SNPs and enhance the sustainability of local SNPs. It also makes the case for growing SNPs to reach all students who can benefit from these programs.

This report includes a literature review of SNPs as they exist throughout the industrialized world to examine the administrative and funding models utilized, program goals, participation rates, and program challenges. This literature review reveals that:

- (i) the desire to have a positive impact on students' health is the most common goal for programs in other jurisdictions;
- (ii) the majority of international programs are administered through an educational arm of the government;
- (iii) most programs operate on a cost-shared basis, and most federal governments contribute to the funding model;
- (iv) where programs have restrictive individual means tests, stigmatization negatively impacts participation by needy students.

The international literature review confirms that the Toronto SNP model has adopted many of the best practices, and in some of its features, is a leader in this field.

Key Research Findings

The review of a large body of research reveals:

- eating habits established in childhood and adolescence track into adulthood,
- obesity contributes to chronic diseases such as diabetes, cancer and heart disease,
- the childhood rate of obesity/overweight is increasing and is a public health concern,
- people of lower socio-economic status have a higher propensity for overweight/obesity,
- 32% of Toronto's children live in poverty,
- breakfast provides key nutrients that children and youth require after sleep,
- breakfast can economically provide low fat, low sodium, highly nutritious foods,
- the incidence of students skipping breakfast increases with age, and is increasing over time,
- routinely eating breakfast improves weight control,
- household food insecurity is one of the many causes of breakfast skipping,
- modern lifestyle is another cause of skipping breakfast at home, and
- student breakfast consumption has been shown to improve health, learning and behavioural outcomes – a large body of evidence, including local Toronto District School Board study data from Toronto SNPs now provide concrete evidence of these outcomes.

This report concludes that breakfast and/or morning meal* SNPs form part of sound public health policy, and furthermore, to optimize the municipal investment in SNP, municipal funds should be allocated to breakfast/morning meal programs in schools prioritized by need, as opportunities arise.

There is no federal SNP model in Canada; as such the SNP model as it exists in Ontario is reviewed in detail. The current Toronto model is examined, identifying the funding, administration, program growth, and local program challenges. The overall assessment of SNPs in Toronto reveals that the SNP funding model is viable ***provided adequate and sustainable funding is provided.***

For SNPs operating in provincially "designated" (high risk) areas, governments (provincial and municipal combined) fund *at most* 20% of typical program costs. Breakfast SNPs are extremely cost effective and provide excellent value for money (in this case, nutrition for money). It costs \$1.46 per day to provide an elementary student breakfast in a Toronto SNP. This means that for a typical breakfast program (282 students) in an elementary school in a designated area, governments provide approximately \$15,360 funding for the school year, leaving a balance of almost \$60,000 to be raised locally through fundraising, parental contributions, and

* Defined by MCYS as a meal consisting of at least 3 food groups and served at or before 10:30 a.m.

Executive Summary

community donations. Raising almost \$60,000 to feed breakfast to 282 students is a significant task for most schools, but is even more daunting for schools in economically challenged areas.

When schools cannot raise the required funds (i.e. 80% of the budget), programs are scaled back in ways which likely reduce their benefits including:

- reducing the number of days per week the program operates (approximately 38% of schools operate fewer days per week than planned);
- delaying the start date of the program (e.g. starting in October instead of September);
- reducing the number of food groups served (a meal is considered to be at least 3 food groups to provide adequate nutrition);
- reducing the portion size (reducing the nutrition provided by the meal);
- closing the program earlier than anticipated (approximately 38% of programs stop operating earlier than planned, 10% close before the first week of April); and/or
- reducing the number of students who can participate in the program.

Regardless of the action(s) taken, programs become vulnerable and the positive outcomes for children and youth in terms of health, learning and behaviour are reduced. Without increased sustainable funding sources, the vulnerability of SNPs in Toronto will continue as:

- the cost of food, especially fruits and vegetables (which SNPs rely heavily upon), continues to increase;
- the number of participants in existing school programs continues to increase (which results in less funding available on a per student basis);
- some programs are currently operating without any municipal contributions;
- there is an outstanding waiting list of schools applying for SNP funding; and
- parental contributions appear to be diminishing (due to current economic conditions, competing fundraising and fees in schools, and the fact that most programs operate in high risk/low income areas).

This report concludes that, to obtain maximum benefit from municipal investment in SNPs, and to optimize outcomes for students, the City of Toronto should:

1. First, increase funding to existing breakfast programs to reduce their vulnerability and optimize benefits; and
2. Then, increase funding to expand access in schools where students would benefit most.

This review proposes recommendations for this stabilization and growth, and provides other recommendations to strengthen the SNP model.

1. Recommendations

1. That City Council endorse the vision of SNPs delivered in all Toronto schools so that students who would benefit can achieve the positive health, learning and behavioural outcomes that result from this key nutrition strategy.

There is a growing body of research, including Canadian findings, which solidifies the positive relationship between eating breakfast and health, learning and behavioural outcomes among students. Studies also confirm that student participation in school meal programs increases if the programs are available to all students who would benefit from the program, provided they are not identified or centered out.

2. That the Medical Officer of Health optimize the City's current investment in SNPs by ensuring that municipal funding is prioritized, as opportunities arise over the next 5 years, to breakfast programs in higher need schools.

The breakfast meal is critical to children and youth because it provides much needed nourishment after a prolonged fast during sleeping hours. This nourishment enhances cognitive ability and concentration, which has a positive impact on learning outcomes. Yet sadly, many Toronto students regularly arrive at school without eating a healthy breakfast.

Although SNPs are extremely beneficial to all students in all socio-economic situations, evidence almost consistently concludes that children of lower socio-economic status have more irregular breakfast habits than children of higher socio-economic status. Provided that SNPs are available to all students who wish to participate within a given school, the benefit derived from investing in SNPs is maximized by funding breakfast programs in higher need schools first. Therefore, when opportunities to expand the program or re-align funding (e.g. if a school opts to close its existing program), priority should be given to higher need schools.

3. That the Medical Officer of Health report to the Board of Health, as part of the 2013 budget process, on a plan to increase the City's investment in a SNP funding partnership model.

Many existing SNPs in Toronto are vulnerable due to the lack of sustainable core funding. When funding is inadequate, students do not receive the full benefit which SNPs can offer, and the benefits from Toronto's investment is not maximized. In Toronto, there are approximately 800 publicly funded schools; government assisted SNPs will operate in 436 of these communities in 2012/13. Numerous schools operate SNPs with only provincial funding. Other schools have applied for funding (provincial and municipal) but have been placed on wait lists due to limited funding. Increasing investment in SNPs would enable the program to expand into more schools where the program is needed and assist more students.

1. Recommendations

4. That City Council consider as part of the annual operating budget process, an annual increase to the City's investment in SNPs equal to the annual amount of food inflation reported by the Nutritious Food Basket survey.

Although in some years the City budget process has included a cost of living adjustment for SNP funding, there is no formal mechanism to consider the impact of rising food costs. Without consideration for rising food costs, local SNPs are faced with an even greater funding challenge (combined, municipal and provincial contributions fund at most 20% of a local program's cost). When adequate funding is not available, programs must decrease the quantity or quality of food, reduce the frequency of the program, or reduce the number of students that can participate. Annual increases to reflect rising food costs will assist in program sustainability.

5. That City Council urge the Government of Ontario to provide annual adjustments to provincial SNP funding in consideration of the impact of food inflation.

All Public Health units in Ontario must annually report the cost of the Nutritious Food Basket (NFB), which represents 67 standard nutritious food items. This monitors the cost and affordability of healthy eating in each geographic area. Historically, over the past decade, the cost of the NFB rose by approximately 3% on average each year, outpacing general inflation. Yet provincial funding for SNPs has not increased sufficiently to reflect these rising costs. The last provincial SNP increase related to the cost of food occurred in 2009, and costs have increased by 5.3% since that time.

6. That the Board of Health urge the Directors of Education of Toronto school boards to maximize the use of their current resources to support SNPs by:

- i) Optimizing the allocation of space and equipment for local SNPs in schools, including the creative use of multi-purpose areas;
- ii) Supporting staff time and involvement in local school-based SNPs in light of the growth of the programs;
- iii) Exploring educational opportunities to teach cooking, food skills and nutrition to students; and
- iv) Integrating innovative and creative food-related school activities with local SNPs.

The Boards of Education and local schools have been excellent partners in the Toronto Partners for Student Nutrition (TPSN); however, many local programs still find it difficult to acquire and maintain adequate food preparation, cooking, serving, and storage space in schools. The most successful SNPs are those where food and nutrition are embedded in the school's overall programming, with student and administration staff involvement.

1. Recommendations

7. That the Board of Health request the Minister of Health and Long-Term Care to consider SNPs as a key element in the *Childhood Obesity Strategy*, and furthermore, that this report be forwarded to the Minister's *Healthy Kids Panel* as input to its strategy development.

Studies strongly indicate that breakfast consumption can play a key factor in overweight and obesity prevention. Dietary behaviour established in childhood and adolescence tracks into adulthood; hence, improving breakfast habits among students is a logical policy for the prevention of both childhood and adult obesity. The Minister of Health and Long-Term Care has recently announced "Ontario's Action Plan for Health Care". One of the key goals in the plan is the challenge to reduce childhood obesity by 20 per cent over five years. To accomplish this, the Ministry is establishing a panel of advocates, health care leaders, non-profit organizations and industry to develop a strategy to meet the 20 per cent reduction target. This panel is to report back by Fall 2012.

8. That the Board of Health reiterate its request to the federal government to provide core funding for SNPs across Canada, which, internationally, is a best nutrition practice for students to achieve improved health, learning and behavioural outcomes.

The review of SNPs in 19 developed countries reveals that most, if not all, successful SNPs are funded by multiple partners, including the federal government.

9. That the Medical Officer of Health engage key private, public and voluntary sector leaders in strategic discussions regarding a sustainable funding and growth plan for Toronto SNPs.

As evidenced by the rapid growth in both the number of local programs and the number of students participating, TPSN has achieved remarkable results since it was first conceived. However, the programs are becoming increasingly vulnerable due to the lack of sufficient funding. Although fundraising occurs at the foundation level (Toronto Foundation for Student Success and the Angel Foundation for Learning) as well as the local school level, fundraising falls well below the need.

Key influential leaders from many sectors can mobilize funding sources and have the expertise required to assist in the development of a sustainable funding and growth plan that will stabilize the program and enable more Toronto students to benefit from the positive outcomes of SNPs.

10. That the Toronto Partners for Student Nutrition work with experts to maximize efficiencies in food procurement, safe storage, and distribution.

Through TPSN, a number of bulk purchasing and distribution mechanisms have been established (e.g. milk, fruits and vegetables). Beyond this, local programs must rely upon program volunteers/coordinators to purchase foods in local stores. While this has the advantage of supporting local businesses, it may be more costly, and burdensome on program volunteers. There may be efficiencies to gain from alternative procurement and distribution practices; however, caution must be exercised to ensure that local program "flavour" is maintained.

2. Introduction

Student Nutrition Programs (SNPs) are programs operating in schools and other community-based locations to provide children and youth with healthy, nutritious snacks or meals. In other parts of the world, SNPs are often referred to as Child Nutrition Programs, School Feeding Programs, School Breakfast Programs or School Meal Programs. For the purposes of this review, these terms will be used interchangeably (although in Ontario, the usual term is SNP).

Most SNPs are based upon a partial-funding model, consisting of contributions from government, parents, corporate donations, and fundraising. The City of Toronto invests in many local SNPs through a grant offered through Toronto Public Health (TPH). Although TPH plays a key role in SNPs in Toronto, TPH does not directly administer these community-based programs.

In Toronto, the municipal investment in SNPs has grown from approximately \$1.3 million in 1998 to approximately \$3.8 million in 2012, and respective provincial contributions have grown from \$0.8 million to \$5.3 million. ***Over the years, the proportion of government funding, relative to total SNP costs, decreased as the number of participating children and youth increased.*** Today, the City's investment in SNP represents approximately 9% of the total program cost. In addition to the pressure of increasing need and student participation, food costs have risen on average by approximately 3% per year.

Despite the recognition of the benefits of the SNPs, many local SNPs face tremendous challenges due to the current operating and funding scenarios. At its June 15, 2009 meeting, the desire to strengthen SNPs prompted the Board of Health to request TPH to conduct a collaborative review with the partners who oversee the program.¹:

A thorough program review with the lead funding agencies is being recommended. This review will aid to improve the long-term sustainability of the Student Nutrition Program, ensuring that programs can meet high nutrition standards, have adequate infrastructure and space, meet the principles of universality and be offered in a non-stigmatizing manner. The review will look at the challenges currently faced in responding to increased participation rates, substantial program growth due to changing provincial funding priorities, and a partially funded program model dependent on unrealistic levels of fundraising and parental contributions.

This report comes at a time of mounting fiscal pressures within the City of Toronto and the global economy. Hence, the purpose of this review is to identify methods whereby the City of Toronto can maximize the benefits derived from its investment in Toronto SNPs, while also enhancing the financial sustainability of local SNPs.

3. International Student Nutrition Programs

As input to this review, a literature review was conducted to synthesize the international literature in the areas of program goals, administration, funding, operations, parental and community participation, student participation, and program challenges. The review included only peer reviewed data, and as such, anecdotal and non-academic information was not included. Information from Japan and Korea were not accessible. ERIC, MEDLINE/PubMed, EMBASE, Cochrane Library, and Scopus databases were searched, and over 75 documents were reviewed. A summary of the findings for each country is provided in Appendix B.

While most information was obtained from the United States and the United Kingdom (England, Scotland, N. Ireland, Wales), other countries included in the review were the Republic of Ireland, Germany, Italy, France, Norway, Denmark, Finland, Brazil, Chile, India, South Africa, Hong Kong, Jamaica and Australia (19 countries in total).

Program Goals

Although many international programs state more than one goal, five general SNP drivers prevail:

1. **Health:** Improving health and nutrition is the most common goal (France, Italy, Brazil, the United Kingdom, and the United States), and some programs specifically mention the prevention of obesity as a goal.
2. **Education:** Improving educational outcomes through school attendance is one of the most common targets of international school meal programs (Jamaica, Australia, Chile, and India all cite attendance); improving school performance is cited by programs in Ireland, South Africa and Wales.
3. **Child Hunger and Poverty:** Few programs have specific objectives relating to preventing hunger; although historically, many programs were initiated on this basis. Today, programs in India, the UK and Jamaica include hunger prevention as a program objective.
4. **Social Development:** France and Finland consider school meals to be an opportunity for students to learn good manners and eating habits, and to interact with other students in a relaxing and pleasant atmosphere; the French also see school meals as a time for discovery and pleasure related to food experiences.
5. **Local Food and Employment:** SNPs in a small number of countries incorporate objectives not directly related to children and/or nutrition. These objectives include the use of local food, preservation of local food habits, support for local food production (Brazil, United States) and the creation of employment opportunities (indigenous people in Australia).

Program Administration

It is difficult to accurately compare governmental responsibility for administering international SNPs due to the inherent differences in government structures. However, the literature indicates that most countries (12 of the 19 reviewed) fund their SNPs through the governing body responsible for education. In Italy, the program operates through the Department of Health (the program's main drivers are health and the consumption of

organic foods). Ireland's program is driven by the goal to reduce poverty and increase social protection, so it is administered and governed by Ireland's Department of Social Protection. In the United States, the program is funded and administered through the Department of Agriculture.

Funding Models

The majority of international programs are funded, at least in part, by federal governments. Four common funding models prevail:

1. Government Universal Subsidization (two sub-models):

- i) One subsidization model involves government paying for a designated portion of the program cost (for all participating students), or for specific types of costs, while parents are relied upon for the balance. For example, in Australia, the government funds program infrastructure and operations, while parents are required to pay for the cost of the food. In Jamaica, the government provides a cash grant for selected commodities which the Ministry of Education purchases and warehouses centrally; the rest is paid by students, and the co-pay amount varies by school depending on the type of meal served.

Since it is the Norwegian tradition to bring a packed lunch from home, a subscription scheme for milk (partial subsidy) and fruit (full subsidy) is used. In France the government subsidizes a portion and parents pay the remainder; the amount parents pay is dependent on income with lower income families charged less.

- ii) The other subsidization model involves government paying for a portion of program costs and the remainder must be borne by the local authority or partnerships. Government funding for the School Meals Local Project Scheme in Ireland is only for food costs and is provided only to existing projects that have demonstrated ongoing capability; there are set costs for breakfast/snack, lunch and dinner meals. The organization operating the program is responsible for all program costs except food costs.

2. Free Meals for Students of Low Income Families:

Many international school meal programs are funded through a small partial government subsidy for all meals provided (which is similar to model (i) above) and a full subsidy for meals to students from low income families. In the United States all school meals are subsidized, but at three different rates depending on family income level. Additionally the United States operates a Special Milk Program for Children for the provision of milk to students who do not participate in a federally funded school food program— when milk is sold to children at school the federal government reimburses the school at a rate of 17.75 cents per half pint US\$. If milk is provided to children free of charge, the federal government reimburses schools 100% of the average cost of milk. In Italy, meals are free for some and a 25% discount is provided for another income cut-off point. Italy imposes a maximum price level for those paying full price. In the United Kingdom the funding process is similar, with free school meals across the UK, although each country's program may have differences. UK governments also provide additional funding towards the operation of the school meal programs, e.g., a subsidy for improving the quality and nutrient content of school lunches.

3. Full Universal Government Funding:

Several countries studied provide full government funding for its programs. In Brazil federal funding is for the cost of food, but municipalities are required to pay for programs costs (infrastructure, storage, personnel/labour), although municipalities are encouraged to form partnerships with foundations and private sector organizations. In India the federal government provides staple grains and a cash subsidy per child to compensate for cooking, transportation, and management costs associated with the Mid-Day Meal Scheme. State governments are required to contribute to be eligible to receive the federal funding and often contribute both perishable and non-perishable foods.

Free school meals are compulsory in Finland, and are considered to be part of the basic education system, which is provided by the municipalities. In Wales, a universal breakfast program is fully funded by the federal government, but additional school meals, such as lunch, operate through a subsidized funding model.

4. No Federal Government Funding:

Two of the nineteen countries examined do not have government funding for their programs. In Germany, there is no funding because students only attend school in the morning, returning home for lunch. However, the country is moving to a full day school system and a warm meal provision has been identified as a potential need. While there is no federal funding in Denmark, the most common model is partial municipal funding, with the municipality providing financial support for the establishment and/or ongoing operations of the program, while parental contributions are used to pay for food.

Parental Involvement

The majority of programs use local community or parents in some way. While many program guidelines state that parental and community involvement is encouraged, it is difficult from the literature to ascertain whether this is taking place.

Participation Rates

The availability of student participation data varies. However, the following data was reported:

Table 1: International Participation Rates

Country	Participation
Scotland	<ul style="list-style-type: none"> 46.1% overall (paid or free); 17.8% of those participants are registered for free meals 48.9 % of primary students and 39.6% of secondary students
England	<ul style="list-style-type: none"> 41.4% primary and 35.8% secondary; 18.5% of all primary and 15.4% of all secondary students are eligible for free meals about 20% of eligible students do not take their free school meal entitlement
Finland	<ul style="list-style-type: none"> 90% of boys and 80% of girls participate in the universal program
Chile	<ul style="list-style-type: none"> 1/3 of primary students, where the program is targeted to low income

3. International Student Nutrition Programs

Country	Participation
United States	<ul style="list-style-type: none">• Lunch program (NSLP) fed over 31 million students per day in 2009• Over 78 million half pints of milk were served in schools in 2009 outside of federal school programs• NSLP fed ~57% of the US population 5-17 yrs• 54% of those participants received either a free or reduced price meal• Breakfast program (SBP) fed over 11 million students per day in 2010, serving almost 2 billion meals. Of those:<ul style="list-style-type: none">• 74.4% were free to students• 9.0 % were reduced price• 16.6% were paid

Factors Impacting Participation

Many factors impact student participation rates. Peer pressure and social stigma are cited as the primary factors. For example, to obtain a free lunch in Wales, eligible low income students must use a lunch voucher or token. An assessment of the uptake indicates that *26% of eligible students in Wales do not take their free meal to avoid the risk of ridicule from their peers*. Having obtained this data, the National Assembly for Wales has recommended that all Welsh schools receive guidance on implementing stigma-free school meal systems by the beginning of the 2011 school year.

Other factors reported as having a role in student participation include:

- Age → primary students are more likely to participate than secondary
- Gender → studies show males are more likely to participate than females
- Household income → lower income increases participation
- Program timing → programs offered too early in the day reduce participation
- Population density → students living in rural or remote areas are more apt to participate
- Food → better quality and choice/variety increases participation

Program Outcomes and Effectiveness

New study data of specific programs and recent conclusions are constantly emerging; especially those related to learning and education outcomes, and the impact of regularly consuming breakfast. Due to the significance of these findings, these will be discussed in detail in the next chapter of this report.

Program Challenges

Social stigmatization is cited as the most significant program challenge. Evidence from England indicates that in over 75% of secondary schools, students who receive free school meals can be identified by other students. The National Assembly of Wales demonstrates the severity of this issue by stating in its report on child poverty that *"for the children and young people, who would rather forgo a meal than risk derision from their peers, stigma is more than just an issue for discussion – it is the reason for their hunger."*²

3. International Student Nutrition Programs

The literature on school meal programs contains discussion on a number of other key challenges faced by many of the programs, regardless of their funding models. Next to stigmatization, the challenges most commonly cited in the literature include:

- inadequate funding,
- food quality issues,
- lack of facilities or inadequate facilities,
- presence of competitive foods in the schools (through vending machines, school stores, cafeterias, and near-by off-site stores), and
- student food preferences.

Even though the United States operates one of the largest school meal programs, many American schools experience food preparation and serving space limitations. The solution to infrastructure limitations can often be resolved through capital funding; however, basic operating funding is usually a major hurdle for most programs, so capital funding is often scarce. When SNPs are inadequately funded, programs fail to meet all their stated goals.

International SNP Literature Review Conclusions

A number of conclusions can be drawn from the review of other international programs:

1. No one program is a perfect “fit” for Canada/Ontario/Toronto,
2. International models have components Toronto should consider,
3. Improved health and educational outcomes are primary drivers for many school feeding programs,
4. Cost-shared funding models are most common and appear to be a best practice,
5. Programs require two sources of funding: capital and operating funding,
6. Most federal governments contribute to the cost-shared funding model, and in many cases, state/provincial and local municipalities contribute also,
7. Scarce funding, inadequate facilities, and food quality are issues in most countries,
8. Student stigmatization is a key issue in most countries, and frequently jeopardizes student participation,
9. If using a system which targets individual students, a less stigmatizing “payment” system must be developed.

This international review confirms that the SNP model implemented in Toronto (as described later in this report) has many of the components of the international models, and in many respects, has overcome some of the significant hurdles others are still dealing with. In many instances, Toronto SNPs are leaders in the field.

4. Effectiveness and Outcomes

Recent studies demonstrate consistent findings related to breakfast skipping, poverty, and obesity. A conclusive body of evidence now substantiates the health, learning, and behavioural outcomes resulting from eating breakfast and the provision of SNPs. This section will examine the more recent evidence.

Researchers have studied the impact of eating breakfast since the 1950's, but until recently, the scientific research has not resulted in definitive conclusions. Although research existed, it was limited due to methodological problems, and studies resulted in conflicting evidence. However, what is known today supports the importance of managing diets to optimize school outcomes.³

Breakfast is qualitatively different than any other meal of the day due to the fact that it is usually eaten after a period of fasting (i.e. sleeping). This timing has implications for how the body, and especially the brain, responds to yet a further delay in eating and/or what is eaten. Yet, regardless of the growing body of evidence indicating the importance of eating a healthy breakfast on educational outcomes, many children and youth arrive at school each morning having consumed their last meal the previous evening.⁴ In fact, breakfast skipping is increasing in prevalence.⁵

Incidence of Skipping Breakfast

The US National Heart, Lung and Blood Institute's[†] Longitudinal Growth and Health Study of over 1,400 girls showed that breakfast skipping increases with age. This study showed that at age nine, 77% of the Caucasian girls and 57% of the African-American girls ate breakfast on all three days studied, but by age 19, these results dropped to 32% and 22% respectively.⁶ A study of 846 San Diego inner-city high school students showed that 57% of the students had not eaten breakfast on the day of the survey, and that girls were more likely to skip breakfast than boys (61% versus 54%).⁷ Another study shows that urban students are twice as likely to skip breakfast.⁸

A 2008 study confirmed that skipping breakfast is more prevalent among female students, children from lower socio-economic backgrounds and older children and adolescents.⁹

In Canada, more than 24% of children in Grade 4 do not eat breakfast every day; by grade 8, this number escalates to 47% of girls and 33% of boys skipping breakfast.¹⁰ Another study estimates that 42% of Canadian children do not regularly eat a nutritious breakfast (as opposed to no breakfast).¹¹ The Ontario Student Nutrition Program website cites the following trends¹²:

Canadian research shows that more kids skip breakfast as they get older.

- About 5% of young school children skip breakfast, grade 4, an average of 24% of students skip breakfast, and 41% of eighth graders miss the morning meals
- Breakfast skipping becomes a bad habit for teenagers.
- More than half of secondary school boys and almost 2/3 of secondary school girls don't eat breakfast every day.

Source: www.osnp.ca

[†] U.S. Department of Health and Human Services

Why is the Morning Meal Often Overlooked?

Children and youth arrive at school without eating breakfast for many reasons including, but not limited to:

- Lack of time in the morning,
- Lack of appetite upon rising,
- Many parents leave for work before children need to be at school¹³,
- Insufficient role modelling since many adults do not eat breakfast at home, but purchase their breakfast on their way to work¹⁴,
- Long commutes to school, and/or
- Food insecurity in the home¹⁵.

Child Poverty and Food Insecurity

"Hunger is often hidden, even in families in which other indicators of poverty exist. Parents may be embarrassed to admit that they are not able to provide adequate food for their children"¹⁶ According to the Social Planning Network of Ontario, 44% of Canada's poor children reside in Ontario.¹⁷ In Ontario in 2008, approximately 412,000 children and youth under age 18, or one in six, were living in poverty. In the Greater Toronto Area, a December 2008 report issued by the Children's Aid Society of Toronto indicates that "both child and family poverty has grown considerably in recent years, despite a long period of strong economic growth throughout the GTA. Poverty is entrenched in the GTA and is not sustainable."¹⁸ With the current economy, child poverty is expected to increase.¹⁹

The "Profile of Low Income in the City of Toronto" (2011) portrays a sad picture of child poverty in Toronto²⁰.

Child Poverty in Toronto

- On average 32% of Toronto's children live below the Before Tax Low Income Cut-Off (LICO), as defined by Statistics Canada
- In 2006, Toronto was home to 131,000 low income children under 15 years of age
- Toronto continues to have a higher concentration of low income children than other jurisdictions (32% in Toronto versus 13% in Canada)

Source: http://www.toronto.ca/demographics/pdf/poverty_profile_2010.pdf

Food insecurity is evidenced by the increasing usage of food banks in Canada, which were originally envisioned in 1981 as a temporary measure to address hunger. "Fifteen months after the end of the 2008-09 recession, food bank use was essentially unchanged from the same period in 2010. Almost half of food banks [in Canada] actually reported an increase in the number of people they assisted in March 2011, compared to the year before."²¹ Food Banks Canada report "HungerCount 2011" reveals that in Ontario, 38% of those receiving food were children and youth under the age of 18.

The Link between Income, Breakfast, Behaviour and Obesity

"The main body of literature on the association between socio-economic status (SES) and breakfast habits almost consistently concludes that being a child or adolescent of low SES is associated with irregular breakfast habits and this relationship exists for a range of different SES indicators (e.g. parental education, parental occupation, and area level indicators)."²²

Studies show that children in food insufficient households are more likely to have seen a psychologist and to have more difficulty getting along with other children. Also, the 2003 Toronto Report Card on Children indicates that "two of the most common nutrition-related problems in children from low-income families are iron deficiency and childhood obesity."²³ The relationship between residing in disadvantaged communities decreases the odds adolescents will eat breakfast, and increases their chances for chronic obesity.²⁴

Childhood Overweight and Obesity

Obesity has reached epidemic proportions in many countries. Childhood overweight and obesity has become a specific concern for public health professionals because evidence indicates that dietary behaviour established in childhood and adolescence tracks into adulthood²⁵. Obesity is a primary public health concern because overweight and obesity increases the likelihood of many chronic diseases such as:

- Coronary heart disease, stroke, and high blood pressure,
- Type 2 diabetes,
- Cancers, such as endometrial, breast, and colon cancer,
- High total cholesterol or high levels of triglycerides,
- Liver and gallbladder disease,
- Sleep apnea and respiratory problems,
- Degeneration of cartilage and underlying bone within a joint (osteoarthritis),
- Reproductive health complications such as infertility, and
- Mental health conditions.

4. Effectiveness and Outcomes

The potential long term cost resulting from obesity is staggering. A May 2009 report prepared for the Public Health Agency of Canada indicates "obesity costs Ontario approximately \$1.6 billion annually, including \$647 million in direct costs and \$905 million in indirect costs. In Canada, the costs are estimated at \$4.3 billion annually, with \$1.6 billion in direct costs."²⁶

Within Canada, during a study period of 2007-2009, the Canadian Health Measures Survey found that 26% of Canadian children and youth were classified as being either overweight or obese; 17% of children and youth aged 6 and older have a BMI that falls into the overweight category and 9% are obese. A more startling result is the comparison between the 2009 results and 1981. "Among teen boys in the age group 15 to 19, the proportion classified as overweight or obese rose from 14% to 31% between 1981 and 2009. Among teen girls, it increased from 14% to 25%."²⁷

Ontario's Ministry of Health and Long-Term Care recognizes the significance of childhood obesity²⁸:

"Obesity has a direct effect on the rate of type 2 diabetes and diabetes costs Ontario \$4.9 billion a year. Currently over 50 per cent of adults in Ontario, and about 20 percent of youth, are overweight.

"Obesity in childhood contributes to the rise in life-long chronic diseases, such as diabetes, cancer and heart disease. Some experts suggest that this generation of children could live shorter lives than their parents."

Source: Ontario's Action Plan for Health Care, 2012

The Ministry recently announced "Ontario's Action Plan for Health Care", which sets a target of reducing childhood obesity by 20 per cent over five years.²⁹

Almost all researchers agree that prevention could be a key strategy for controlling this current problem.³⁰ In fact, in the SNP international literature review summarized earlier, some countries specifically developed their SNP as part of a childhood overweight and obesity preventative intervention strategy.

Locally, 28.3% of Toronto children/youth aged 2 to 17 are overweight/obese.³¹

Most adult obesity and overweight strategies focus on weight reduction through diet and exercise, but, in general, behavioural changes are not sustained once excess weight is established. As such, **children should be the priority population for intervention, and prevention is a key strategy.**³² It is believed that schools are ideal settings for population-based interventions to address obesity since children spend approximately half of their waking hours in the school environment.³³

A national study of 4,441 children 6 – 18 year old in Australia in 2000 concluded that³⁴:

- "Dietary self-efficacy, nutritional quality of breakfast and SES [socio-economic status] were found to be the principal predictors of BMI in addition to the expected biological factors of age, gender and height. Furthermore, low SES was found to contribute to high BMI, mediated by the low nutritional quality of breakfast."
- "These results suggest that breakfast programmes for low-income children may be an effective measure in the prevention of childhood obesity."

Impact of Breakfast Consumption and SNPs

By far, the majority of studies today indicate that regular breakfast consumption, and the provision of early day SNPs, results in positive health, learning and behaviour outcomes among children and youth.

Health Outcomes

Studies consistently demonstrate that breakfast is key to nutritional health. Breakfast generally comprises three (grain products, milk products, and vegetables and fruit) of the four core food groups and is typically a nutritious meal which is often low in fat and high in carbohydrates. Breakfast skippers are reported to have higher daily intakes of fat, cholesterol, and energy and lower intakes of fibre, vitamins, and minerals than breakfast eaters.³⁵

In their evaluation of the impact of school nutrition programs, Bhattacharya, Currie and Haider found “evidence that children who have a School Breakfast Program (SBP) available consume a better overall diet, consume a lower percentage of calories from fat, are less likely to have a low intake of magnesium, and are less likely to have low serum levels of vitamin C and folate.” The study concludes that the availability of an SNP has beneficial effects for all children.³⁶

Other studies show that consuming a high quality breakfast is associated with better mental health.³⁷ One school breakfast study found that students participating in the breakfast program experienced “reduced psychosocial problems including depression, anxiety and hyperactivity, in addition to improving their academic performance, attendance and punctuality”.³⁸

Breakfast skipping is clearly associated with overweight and obesity. One study found that children who did not eat breakfast were 1.5 times more likely to be overweight.³⁹ Another key study underway is examining the impact of a school breakfast program in combination with several other key school interventions (including parental outreach, nutrition related curriculum, and social marketing). This study has revealed that, after two years, in the intervention schools (with universal free school breakfast programs) there was a 50% reduction in the incidence of overweight. Furthermore, significantly fewer children in the intervention schools became overweight in two years as compared to the control schools. The study concludes “a multi-component school-based intervention can be effective in preventing the development of overweight.”⁴⁰

Sandercock, et al (2010) demonstrated that breakfast consumption results in lower BMI, better long term weight control, increased physical activity, and improved cardio respiratory fitness⁴¹.

The United States has long had federally funded school lunch and breakfast programs. Assessment of these programs indicates that the lunch program may be contributing to childhood overweight and obesity; but the school breakfast program is a valuable tool to fight the current battle against childhood overweight and obesity.⁴² However, comparative conclusions cannot be drawn from these results, since the lunch program has operated within the regular school cafeterias, which have not been subject to strict nutritional guidelines. The United States is now in the process of introducing more stringent school cafeteria nutrition guidelines.

Learning Outcomes

Advances in neuroscience demonstrate that specific nutrients are essential for cognition. Specifically, research has documented adverse effects of skipping breakfast on aspects of cognitive performance, particularly alertness, attention, memory, processing of complex visual display, problem solving and mathematics.⁴³

Studies show that skipping breakfast relates to snacking, especially on foods high in sugar and fat.⁴⁴ The World Health Organization (WHO) has also demonstrated that “skipping breakfast leads to mid-morning fatigue and may interfere with learning”.⁴⁵ WHO believes that this increased consumption of inappropriate snacks may be responsible for the decline in student consumption of fruits and vegetables. They report that “the proportion of pupils eating fruit and vegetables on a regular basis decreases with age”.⁴⁶

In his 2000 review of student nutrition programs in Canada, Hyndman reported that the morning or noon meal contributes to quantity and quality of total intake of energy, protein, carbohydrates and micronutrients including iron.⁴⁷ An American study reviewed standardized math test scores among 5,398 children aged 6 to 16, and found that scores were lower among those with iron deficiencies. This study showed that iron deficient children were twice as likely to score below average on these tests, and that the findings were even more pronounced among girls.⁴⁸ This is consistent with older literature (1996) which shows that children who eat breakfast at school, closer to class and test-taking time, perform better on standardized tests than those who skip breakfast or eat breakfast at home.⁴⁹ Not only do children experiencing hunger have lower math scores, but they are also more likely to have to repeat a grade.⁵⁰

Studies have verified the cognitive improvement resulting from breakfast consumption among young children; however, in the past this result has been disputed among youth. A more recent study (2008) among 13 – 20 year olds concludes that while breakfast had no effect on *sustained* attention among high school students, *positive short-term* effects on cognitive functioning and self-reported alertness were reported.⁵¹

Academic achievement is known to be a critical step to stop the generational repetition of poverty. In light of this, one study analyzed Quebec data (2,346 adolescent students 13 and 16 years of age) to determine the association between household food insecurity and school difficulties, and to explore the moderating role of food supplementation programs with respect to the association. Specifically, the study examined whether school food programs with free or reduced-price snacks or meals in underprivileged neighbourhoods have a moderating effect on the association between food insecurity and school-related outcomes. The study found⁵²:

- household food insecurity was strongly associated with the indicators of scholastic difficulties,
- this association disappeared for adolescents who benefitted from food supplementation programs in schools in disadvantaged neighbourhoods:
 - risk of school activity limitation decreased,
 - risk of below-average grades decreased,
 - risk of repeating a year decreased, and
 - risk of self-rated poor academic performance decreased.

4. Effectiveness and Outcomes

Although the conclusions from the Quebec data are consistent with the general literature, a smaller study of 180 preschool aged children and 228 school-aged children suggests there was no relationship between hunger and academic performance.⁵³

Currently the Toronto District School Board (TDSB) is in year two of a three year study to evaluate its *Feeding Our Future* program, a free, universal morning-meal pilot program. This program is operating 100% funded SNPs in seven schools in the northwest quadrant of the City of Toronto, offering meals to 6,000 students. Four schools are middle schools, while three are at the secondary level. Six schools have the morning meal served in the classroom, while one program (in a secondary school) is a "grab and go" which provides a morning meal in the foyer. Preliminary results of the study appear to be consistent with other published studies.⁵⁴

TDSB Evaluation of Feeding Our Futures Project Findings

The Grade 7 and 8 students who ate morning meals most days in a school week achieved better results on their learning skills (i.e., excellent or good) compared to those students who ate in the morning on only one to two days or who never ate in the morning. Differences were noticeable in the areas of independent work (70% vs. 56%), initiative (65% vs. 51%), problem solving (66% vs. 53%), and class participation (72% vs. 60%).

The information from report card data for the Grade 7 and 8 students shows significant differences in the case of Reading, where 61% of students who ate the morning meal on most days in a school week achieved or exceeded the provincial standard (Levels 3 and 4) compared to half (50%) of the students who ate morning meals on only a few days or not at all. Fewer students (28%) who ate morning meals at least three days in a school week were at-risk in Science, compared to nearly half (44%) of those students who ate morning meals only one to two days or who never ate them.

Secondary school students who ate morning meals on most days during a school week were on-track for graduation by accumulating sufficient credits and achieved better scores in Mathematics than those who ate morning meals on fewer days during the school week or who never ate in the morning.

Most students indicated that the program fulfilled their basic needs and improved their well-being. Students who ate morning meals on most days during a school week were more likely to rate their health as excellent or good (75% vs. 58%) and to indicate that their health had improved since the last school year (63% vs. 45%).

Students who ate morning meals on most days during a school week were less likely to be suspended and more likely to come to school regularly.

Source:

http://www.tdsb.on.ca/wwwdocuments/about_us/external_research_application/docs/EvaluationFOFProgram04Apr12.pdf

Behavioural Outcomes

The two strongest and most consistently reported behavioural outcomes resulting from eating breakfast are increased school attendance and decreased tardiness.⁵⁵ This result was specifically noted as it related to school breakfast clubs by Kleinman et al. (2002), who found an improvement in attendance, punctuality, math grades and behaviour in children who attended a breakfast club for six months compared to children who did not.⁵⁶ In a school breakfast study, Murphy et al. (1998) found that participating pupils experienced reduced psychosocial problems like depression, anxiety and hyper activity, in addition to improving their academic performance, attendance and punctuality.⁵⁷ Teachers reported improved concentration of pupils in morning classes, speedier integration into the school day, improved social skills and interaction across year groups and improved social contact with school staff.⁵⁸

American research found an association between a history of school suspension and low serum total cholesterol among 4,852 children aged 6 to 16. This association was valid even after controlling for factors such as cognitive and academic performance and nutritional status. This research supports previous research which demonstrated a link between adult low serum cholesterol and aggression.⁵⁹

Locally, similar results are being reported by the TDSB evaluation of the *Feeding Our Future* pilot project. School administrators, teachers and program staff indicated numerous benefits from students eating morning meals, including⁶⁰:

- Improved attendance – secondary students who frequently ate breakfast at school were more likely to attend school regularly (4.8% absenteeism rate vs. 6.7%)
- Improved student behaviour or attitude, reduced disciplinary problems -secondary students who frequently ate breakfast at school were less likely to be suspended (3% vs. 6%),
- Reduced tardiness, and
- Improvements in ability to stay on task.

Overall Benefits of the Morning Meal and SNPs

Many reports and documents have stated the positive impacts of eating breakfast, as well as the consequences of skipping breakfast. SNPs provide a vehicle by which students can have easy access to breakfast or a morning meal. To summarize this section, the outcomes and effectiveness of eating breakfast and SNPs include:

- A contribution to both the quantity and quality of the required intake of energy, protein, carbohydrates and micronutrients⁶¹,
- Improved cognitive functioning, especially the speed and accuracy of information retrieval in working memory⁶²,
- A contribution to good nutrition, which “fosters mental, social and physical well-being, contributing to increased self-esteem and positive body image”⁶³,

4. Effectiveness and Outcomes

- Improved classroom behaviour / fewer discipline problems,
- Improved school atmosphere,
- Improved food knowledge and healthier food choices,
- Reduced absenteeism^{64, 65},
- A reduction in tardiness⁶⁶,
- Increased learning readiness,
- A decrease in health risks related to poverty and obesity⁶⁷,
- An opportunity to establish life-long healthy eating habits⁶⁸, and
- An opportunity to learn how to choose, prepare and enjoy nutritious food⁶⁹.

TDSB reports that “the interim results suggest that universal school morning meal programs can be a valuable intervention measure to facilitate student success and well-being.”⁷⁰

A 2010 issue brief regarding the Child Nutrition Reauthorization in the United States succinctly states the benefits of SNPs⁷¹:

The School Breakfast Program is a miracle of good public policy. It not only reduces hunger, but it has a range of other positive outcomes that advance key national priorities. The positive impact of the program on student achievement, health and well-being is well documented in an extensive body of research.

5. The "Gold Standard" SNP

Based on a combination of documented best practices, the review of international programs, and input from subject matter experts, the following are characteristics of a "gold standard" SNP:

- ✓ Offered to all students within a school who can benefit from the program (since schools offer a key opportunity for intervention), or in a nearby community-based environment
- ✓ Integrated into the school environment as a component of a comprehensive school nutrition environment (seen as an integral, seamless component, and not as a separate entity)
- ✓ Has a high participation rate among student population – i.e. students want to be a part of the program
- ✓ Students are actively involved in the program (food preparation, delivery, etc.)
- ✓ Breakfast or morning meal program (served before 10:30 a.m.), consisting of 3 – 4 food groups
- ✓ Offers a variety of culturally appropriate, nutritious foods meeting a Nutrition Standard
- ✓ Integrates food and nutrition knowledge into the school program
- ✓ Financially sustainable:
 - receives an adequate level of funding from government,
 - receives funding from diverse sources,
 - receives parental contributions,
 - successfully raises funds within the school environment (increases commitment and awareness),
 - receives adequate local donations, and
 - receives consistent, reliable funding sources (e.g., corporate, NGOs, other)
- ✓ Meal supervisors who have a positive relationship with the students and provide adequate supervision in gymnasiums or cafeterias
- ✓ Strong Local SNP Committee, which assists with providing program support, fundraising and engaging the local community
- ✓ Engages a knowledgeable, well-trained and committed Local Program Coordinator
- ✓ Sufficient volunteers to share the workload to avoid "volunteer burnout"

5. The "Gold Standard" SNP

- ✓ Adequate kitchen facilities and equipment including the food preparation area, food serving area, food storage area, and commercial food preparation equipment and storage capability
- ✓ Strong partnerships between students, parents, school administration, teachers, the local program coordinator, volunteers, local community groups (businesses, religious institutions, etc.), foundations, the community development workers (animators), school board level staff, and public health
- ✓ Where feasible:
 - offers fresh fruits and vegetables,
 - uses local, sustainable food products, and
 - reduces reliance on pre-packaged, prepared foods
- ✓ Includes program budgeting, monitoring and evaluation on a regular basis

6. The Ontario SNP Model

Having reviewed the various SNP models throughout the developed world, and the outcomes and effectiveness of school food interventions, this chapter presents a synopsis of the current SNP strategy in Ontario. (Canada does not have a national food strategy; nor does Canada federally fund or administer SNPs. Hence, there is no consistent federal approach to SNPs.)

Within Ontario, provincially supported[‡] SNPs are administered and partially funded through the Ministry of Children and Youth Services (MCYS). For the purposes of SNPs, the province is divided into 18 geographic jurisdictions, and MCYS works with 13 Lead Agencies (see Table 2) to administer (through service contracts) the provincial government's funding.

Table 2: Ontario Lead Agencies

Jurisdiction	Lead Agency
Algoma District, Sault Ste. Marie	Algoma Family Services
Belleville, Quinte West and surrounding Area	Hastings and Prince Edward Learning Foundation
City of Kawartha Lakes, Durham, Haliburton, Northumberland, Peterborough, Simcoe	Peterborough Family Resource Centre
Dundas County, Glengarry County, Prescott County, Russell County, Stormont County, Renfrew County	Upper Canada Leger Centre for Education and Training
Haldimand & Norfolk	Haldimand-Norfolk R.E.A.C.H.
Halton, Dufferin, Guelph, Peel, Waterloo, Wellington	Boys and Girls Club of Peel
Hamilton	Haldimand-Norfolk R.E.A.C.H.
Huron/Perth, Grey/Bruce, London/Middlesex, Elgin, Oxford, Chatham/Kent, Windsor/Essex	Victorian Order of Nurses
Kenora and Rainy River	Northwestern Health Unit
Kingston	Hastings and Prince Edward Learning Foundation
Niagara Falls	Haldimand-Norfolk R.E.A.C.H.
North Bay and surrounding areas	Community Living North Bay
Ottawa	Ottawa Centre for Research and Innovation
Sudbury and Greater Sudbury	Sudbury Better Beginnings Better Future Association
Thunder Bay and surrounding areas	Canadian Red Cross Society
Timmins and surrounding areas	Canadian Red Cross Society
Toronto	Toronto Foundation for Student Success
York Region	Peterborough Family Resource Centre

As the overall administrator of the program, MCYS provides leadership, establishes policy, standards and guidelines (including nutrition standards), and allocates the budgets to the lead agencies. Funding flows from MCYS to the lead agencies, who then allocate the provincial funds to the local programs through a granting process.

[‡] Privately funded SNPs may exist throughout the province; however, since they are not the recipients of public funds, their locations, participation rates, etc. are not known. Hence, these programs are not within the scope of this review.

Provincial funding increased substantially in 2008, when the Province of Ontario introduced its *Poverty Reduction Strategy*. This strategy acknowledged the important role that nutrition has on learning outcomes, and therefore increased provincial funding for SNPs by \$9.4 million per year, providing for a total annual investment of \$17.9 million. The Province's 2010 Second Annual Progress Report on the Poverty Reduction Strategy indicates that this funding supports approximately 1,000 additional breakfast/morning meal SNPs in high needs communities across the province (in 2009-2010). The 1,000 additional programs in high needs communities were identified by MCYS and were defined as "designated" school communities.

The Province has recently advised that in 2010, there are over 4,000 provincially supported SNPs operating in Ontario, serving approximately 600,000 children and youth nutritious snacks and meals.

The Ontario Funding Model

The funding model used in Ontario is based on the premise that individual SNPs will use provincial funds to lever other funds at the local program/community level. In other words, the provincial funding is not intended to replace contributions from parents, corporate sponsors, farmers, local charities or municipal governments.

MCYS provides 3 types of funding for SNPs in Ontario: funding for local programs existing prior to June 2008, funding for local programs in "designated" communities, and community development funding.

- *For programs existing prior to June 2008* (and new programs outside of the "designated" communities), programs are funded up to 15% of the overall cost of the program.
- *For programs in the designated communities*, 15% of the cost for food for each full-time breakfast and morning meal program (i.e. meal served prior to 10:30 a.m. operating 5 days per week) are funded.

The balance (85% or more) of the funding for the local program must be obtained from contributions from parents, corporate sponsors, farmers, local charities or municipal governments.

- Recognizing that local programs require a great deal of centralized support, guidance and assistance, MCYS provides Community Development funds and administration funds for the Lead Agency to provide this function. Community development efforts focus on assisting local programs with food procurement, menu development, fundraising ideas, and other program supports. Community capacity building is a key positive by-product of SNP.

Sample Ontario SNPs

To gain insight into other SNPs operating in Ontario, eight jurisdictions were consulted. Table 3 contains an overview of each jurisdiction.

Table 3: Typical SNPs in Ontario in 2010

Jurisdiction	Number of Programs	Number of Students Served	Predominant Meal	Allocation Strategies	Municipal/Regional Grant Contributions	Municipal/Regional Grant Contributions per student
Algoma	70	5,700	Breakfast	Only funds one program per school in non-designated communities	No, but have emergency food boxes municipally funded	\$0
Stormont, Dundas, Glengarry, Prescott, Russell and Renfrew counties of Eastern Ontario	150	20,000	Morning Meal	Does not fund lunch programs and only funds one program per school	No	\$0
Hamilton	104	24,000	Breakfast and Morning Meal		No	\$0
Huron/Perth/Bruce, London/Middlesex, Elgin, Oxford, Chatham/Kent, Windsor/Essex	444	129,000	Morning Meal	Individual grants subject to a \$500 minimum and \$10,000 maximum limit. All grants have been reduced by 10%.	No	\$0
Ottawa	148	11,500	Breakfast and Morning Meal		\$80,000 from Parks, Recreation & Culture budget	\$6.96
Sudbury and Greater Sudbury	92	11,000	Breakfast	Non-designated programs receive a smaller proportionate allocation, plus designated programs receive an additional \$1,500 per year	No	\$0
Thunder Bay and surrounding areas	73	6,500	Breakfast	Only funds one program per school	No	\$0
York Region	118	24,500	Breakfast	Does not fund lunch or dinner programs	\$120,000 from York Region Community Development Investment Fund	\$4.90
Region of Peel	174	10,682	Breakfast		No	\$0
City of Toronto	683	132,311	Morning Meal	Emphasis on funding SNPs in designated communities; programs in non-designated communities have been 'grand parented'	\$3,800,000 from City of Toronto Community Partnership Investment Program (transferred to Public Health in 2012)	\$28.69

6. The Ontario SNP Model

From these consultations, a number of recurring themes emerged:

1. Parental contributions are always reported as an insignificant and unreliable source of funding that are difficult to obtain, especially in areas where economic pressures have resulted in high unemployment. These contributions are generally difficult to ask for, especially since the local SNPs try to be non-stigmatizing. Greater success has been achieved in asking for food donations.
2. Local fundraising has produced very little funding in all jurisdictions and is unreliable, especially since schools fundraise for a multitude of causes, including sports equipment, field trips, and library improvements. Many schools limit the number of fundraising campaigns to avoid "fundraising burnout".
3. Where they exist, community fundraising and other supports (such as Breakfast Clubs of Canada) are a key factor to program sustainability.
4. Some jurisdictions are looking at ways to change their funding allocation strategy to alleviate the funding shortage by either limiting SNPs to one program per school or by implementing a grant cap.
5. Online financial reporting has great benefits for the school coordinator, the regional manager and the Lead Agency.
6. In most cases, there is limited financial support from the local municipalities.
7. Where municipalities invest in their local SNPs, funding comes from a variety of departmental budgets.
8. While most Public Health Units are very involved in their SNPs, of the jurisdictions contacted, York Region and Toronto play a far more significant role in the SNP partnership in terms of municipal funding grants, dietitian involvement and program governance. Only York Region and Toronto Public Health nutrition staff conduct program site visits.
9. Some jurisdictions have a name for the overall program other than Student Nutrition; in jurisdictions where there is not an overall name, program names often exist at the local level.
10. Some jurisdictions post the participating school names online.
11. Many report that paid coordinators would greatly improve the programs.
12. Many jurisdictions report that restricted use of funds (i.e. funding sources tied to purchasing food only) is problematic because equipment and paid staff are badly needed to improve the programs.

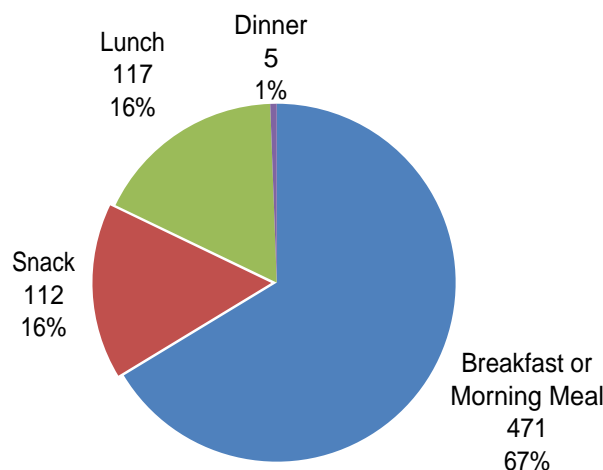
7. SNPs in Toronto

In its simplest form, SNPs have existed in the former City of Toronto since the early 1900's when public health, under Dr. Charles Hastings (Toronto's Medical Officer of Health from 1910 to 1929) funded programs to distribute free milk in schools. Dr. Hastings concluded that many children in Toronto's lower-income communities were severely malnourished. He recognized that while it is an individual's personal responsibility for his or her own health, society as a whole must care for all citizens regardless of their class or other origins.⁷²

Since those early years, SNPs have evolved substantially. Today, the Toronto Foundation for Student Success (TFSS) is the Lead Agency for Toronto SNPs funded and administered by the Ministry of Children and Youth Services (MCYS). Established in 1998, TFSS is the arms length charitable foundation for the Toronto District School Board (TDSB), the largest school board in Canada. TFSS was initially founded to focus on continuing and expanding SNPs. Since then, TFSS has added a wider range of student supports (e.g. milk and apple programs, sight and hearing testing and devices in schools, and after school programs). In addition to the MCYS funding that TFSS administers, it also is the contracted organization to administer the municipal grant to SNPs in TDSB and community sites. The Angel Foundation for Learning (AFL) is contracted to administer the municipal grant to SNPs in Toronto Catholic District School Board (TCDSB) sites.

Combined, TFSS and the AFL administered the provincial MCYS and/or the municipal grants for 705 student nutrition programs in 2011/12, serving 141,386 students, in a city with 2011 estimated total student enrolment of 328,579⁷³ (resulting in an overall participation rate of approximately 43%).[§]

Figure 1: 2011/12 Toronto SNP Program Breakdown
(municipal and/or provincial funding)



[§] TFSS administers programs which receive municipal and/or provincial funding. There were 37 programs which did not receive municipal funding in 2011/12.

7. SNPs in Toronto

As demonstrated in Figure 1, SNPs in Toronto are predominantly breakfast and/or morning meals (471 programs). This is the result of the provincial priority of increased funding for this meal category.

Of the 112 snack programs, 56 are offered to students in the morning. Any given program site may operate multiple programs on a regular basis (breakfast, morning meal, morning snack, lunch, afternoon snack, dinner). Generally speaking, there is no method of ascertaining whether the same or different students participate in multiple programs in a given school. There are only 4 dinner programs which are part of after-school programs designed to attract at-risk students.

Toronto SNPs operate predominantly in elementary schools, but there are also many secondary school programs. Secondary school programs are on average 120 students, but there are some small ones that are part of alternative school programs and a few very large secondary school SNPs with up to 2,000 participants in one school. Numerous programs operate in community sites such as places of worship, private schools and community agencies.

Program Growth

The number of municipally funded SNPs in Toronto has increased dramatically over the past seven (7) years. As demonstrated in Table 4 below, municipally funded SNPs in Toronto now serve 86% more students than in 2005. Today, the City of Toronto invests in the nutrition of approximately 43% of Toronto's students attending elementary, middle or secondary school. Capacity for growth is determined by a number of factors, including:

- Availability of funding sources,
- Need,
- Interest and commitment at local school level,
- Availability of committed volunteers,
- Availability of school infrastructure, and
- Capacity of the governing and administrative bodies to support new programs.

Table 4: Growth Rate of SNPs in Toronto

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Number of Municipally Funded Programs*	367	461	504	575	599	683	668
Number of Participants in Municipally Funded Programs ^{††}	71,606	80,085	84,934	103,864	109,749	132,311	132,837
Annual Growth Rate (participants)		12%	6%	22%	6%	21%	0%
Growth compared to 2005 (participants)		12%	19%	45%	53%	85%	86%

Factors impacting participation in a given school/community include:

1. Age of the participants → Elementary schools generally experience higher participation than secondary schools
2. Socio-demographics of the school community → Higher need areas have higher participation rates
3. Suitability of the program offered → Time of day (during class or outside of class hours)
→ Meal type
4. School/community capacity to offer the program → Adequacy of physical infrastructure to store and prepare food
→ Availability of reliable volunteers
5. Degree of stigmatization associated with participation → Method of obtaining parental/student contributions and the ability to pay

Governance/Administrative Framework

A partnership model, called the Toronto Partners for Student Nutrition (TPSN) governs and administers SNPs in Toronto. (Figure 2 provides a visual overview of the governance model). Oversight is provided by a Steering Committee comprised of partner representatives:

* Statistics reported as are reflected on the funding and appeal applications, as of December 31st each program year. Statistics may not correspond to BOH service subsidy reports since BOH reports are based on spring application results.

†† Same as above.

Table 5: TPSN Steering Committee Composition

Partner Agency	Members on Steering Committee
Toronto Foundation for Student Success	1
Toronto District School Board	1
Angel Foundation for Learning	1
Toronto Catholic District School Board	1
Toronto Public Health (chair + member)	2
Community Representatives	2

Each partner agency provides in-kind support to the programs to aid in the operational needs, based on the partners' identified roles and expertise (such as infrastructure, administration support, fundraising support, volunteer recruitment/retention, and community development).

Partner Agency Roles

Toronto Public Health

TPH plays a key role in the partnership. At the staff level, direct support to programs occurs through the TPH SNP food safety and nutrition workshops offered by public health throughout the program year. TPH public health inspectors and TPH dietitians conduct SNP site visits at least once per year; TPH dietitians are frequently the first person to visit sites at the beginning of the school year, providing nutrition guidance, education and advice. These site visits also provide TPH with the ability to analyze the program discrepancies, challenges, and gauge how closely programs are able to meet the Nutrition Standard.

TPH is represented on the TPSN Steering Committee by the Director of Chronic Disease & Injury Prevention (CDIP), who represents the Medical Officer of Health and is therefore delegated the authority to chair the committee, and a CDIP Manager (nutrition lead) who is also a member.

Toronto District School Board

SNP staff at TDSB support local program development, volunteer training, act as a liaison between partners, assess equipment and facility needs, and support the development of school nutrition committees. As well, TDSB provides critical research and evaluation support for SNPs. Toronto District School Board provides significant in-kind support to SNP, including: use of school space to operate local programs, all utilities and maintenance costs associated with that space, administrative staff are frequently involved in maintaining accounting records, janitorial staff often provide set up and clean up, and in some cases, teachers and principals volunteer time to support the program.

Toronto Catholic District School Board

TCDSB staff supports local program development, acts as a liaison between partners, assesses equipment and facility needs, and supports development of local school nutrition committees. TCDSB is also involved in SNP research and evaluation. Toronto District Catholic School Board also provides significant in-kind support to SNP, including: use of school space to operate local programs, all utilities and maintenance costs associated with that space, administrative staff are frequently involved in maintaining accounting records, janitorial staff often provide set up and clean up, and in some cases, teachers and principals volunteer time to support the program.

Community Representatives

Community representatives provide the partnership with a broad perspective, as opposed to a health or education frame of reference. The community representatives provide direct program insight related to the impacts of policy proposed by the partnership.

In addition to acting as one of the community representatives in TPSN, through a contract for service, FoodShare provides community development at the local level, support local program operations, help coordinate training for program coordinators and volunteers, and liaise with all partners.

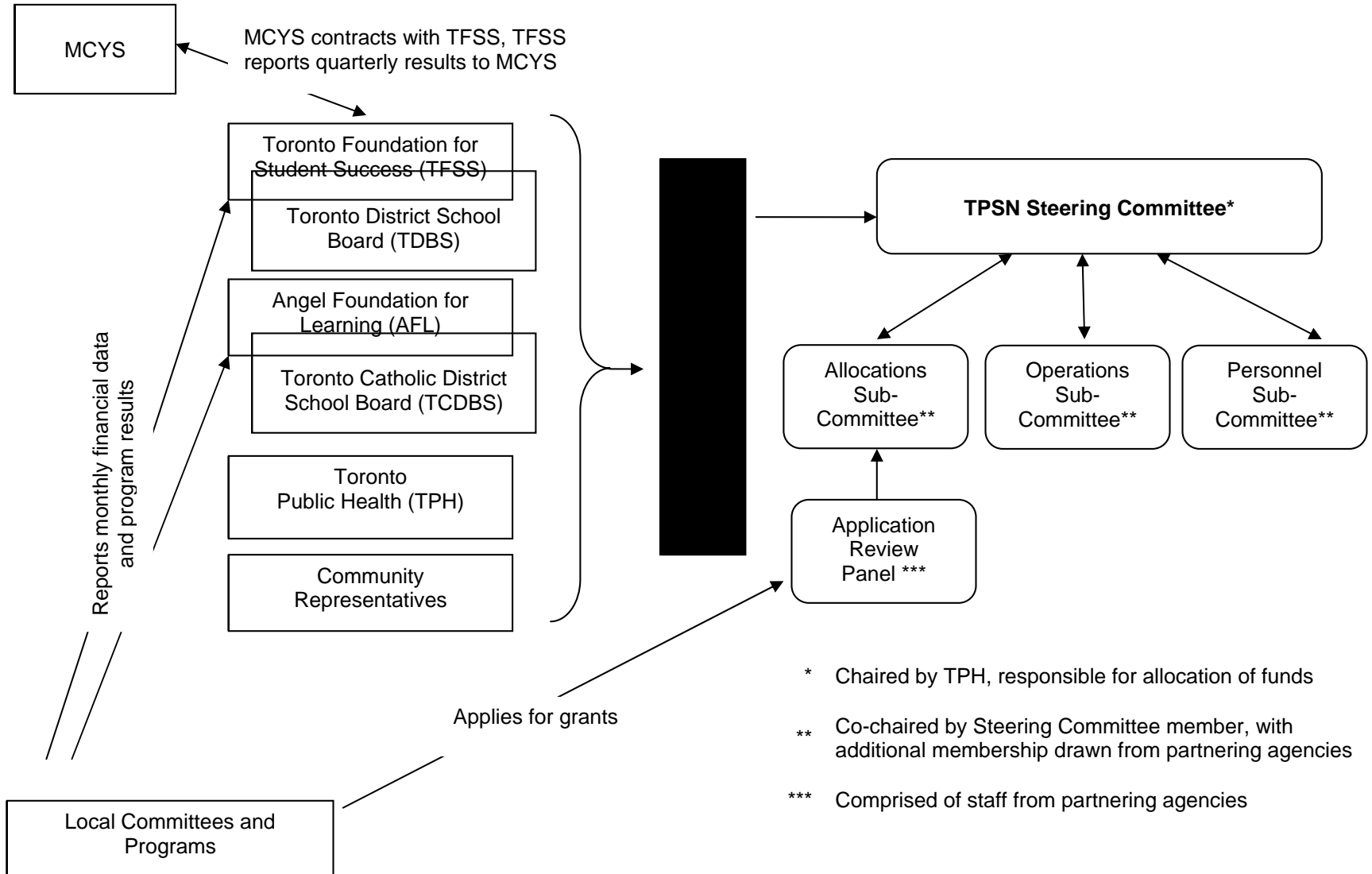
Toronto Foundation for Student Success

In addition to being the Lead Agency for provincial funding, TFSS provides staff to support local program budget and accountability reporting functions, increases local capacity through partnership development and local fundraising, and coordinates SNP research with the TDSB research department. TFSS is also the contracted agency to administer the municipal grant for SNPs within the TDSB and community-based sites.

Angel Foundation for Learning

Dedicated AFL staff build local capacity, liaise with partners, and support budget and accountability functions. They are also the contracted agency to administer the municipal grant for the SNPs within the TCDSB. TFSS assigns some of its provincial lead agency functions, relating to Catholic school-based SNPs, to AFL.

Figure 2: Toronto SNP Governance Model



Funding

Provincial funding (through MCYS) for Toronto SNPs has grown from \$0.8 million in 1998/99 to \$5.3 million in 2011/12. Table 6 provides a breakdown of the provincial funding for the year 2011/12.

Table 6: Provincial Funding for Toronto SNP (2011/12)

\$1,300,008	Existing annual base funding for both designated and non-designated communities
2,817,500	For existing and new morning meal programs in designated communities only
<u>1,219,000</u>	<u>Administration and community development funds</u>
\$5,336,508	Total Provincial Funding for Toronto SNPs

Although the majority of government funding for SNP is provided by MCYS, the City of Toronto is a substantial financial contributor. From 1998 to 2011, the municipal grant was part of the City's Community Partnership and Investment Program (CPIP). CPIP supports the City Council's social, cultural, recreational and economic goals through the delivery of specific programs; assists communities in drawing upon their own talents and resources to identify needs and develop appropriate programs and services; and encourages residents to engage in civic life and participate in decision-making by supporting a City-wide network of community organizations. The CPIP application for SNP in Toronto was made every year through TPH. In 2012, the City of Toronto remains a committed contributor to SNPs in Toronto, but funding for the municipal grant became part of the TPH budget (rather than the CPIP budget).

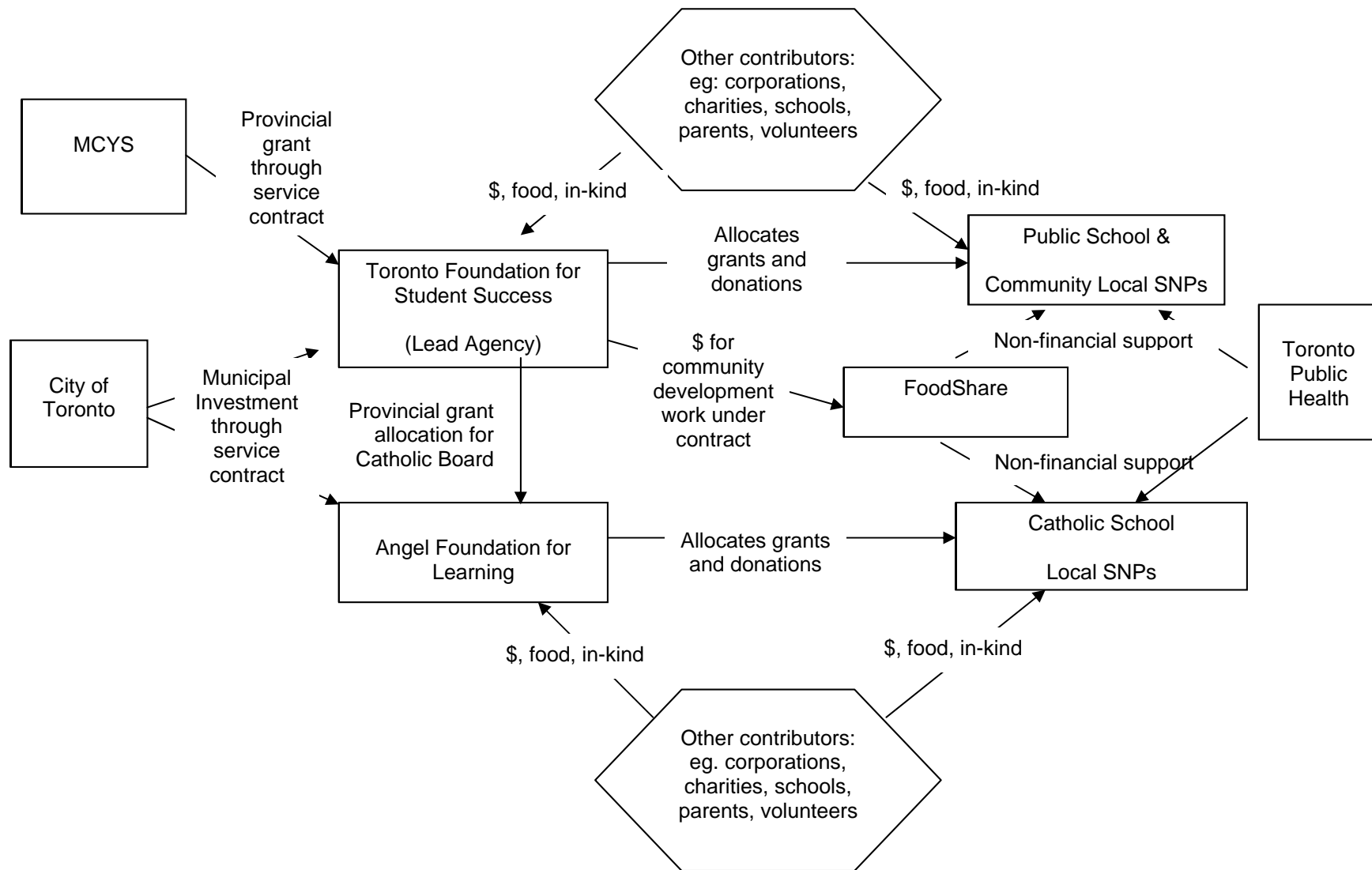
Municipal contributions to SNPs have grown significantly over the years, starting with \$1.3 million in 1998. Table 7 outlines the total government funding for Toronto SNPs for the 2010/11 school year.

Table 7: Total Government Funding for Toronto SNP (2011/12)

\$5,336,508	Total Provincial Funding for Toronto SNPs, including community development/administration
<u>\$3,819,580</u>	<u>City of Toronto grant for Toronto SNPs</u>
\$9,156,088	Total Government Funding for Toronto SNPs

Although MCYS flows all of Toronto's MCYS grant through TFSS, the City of Toronto issues its grants to TFSS (on behalf of TDSB and community sites), and to the Angel Foundation for Learning (AFL), the arms length charitable foundation for the Toronto Catholic District School Boards (TCDSB). TFSS disburses the provincial funds to AFL for the Catholic school-based and community-based programs. The two charitable foundations then flow both the provincial and the municipal SNP grant funds to their respective school and community-based programs. Figure 3 below provides a diagrammatic view of the flow of funds for Toronto SNPs.

Figure 3: Financial Flow for SNPs in Toronto



7. SNPs in Toronto

Municipal grants are to be utilized for food (i.e. no major capital purchases, staff costs, or operating supplies). TFSS and AFL provide the City with audited financial reports on an annual basis, and SNP financial reports are provided 3 times per year, as well as a year-end financial report.

Although Toronto SNPs receive over \$9 million in government funding, the cost to operate these programs is significantly higher.

Table 8: Total Program Cost of Municipally Funded SNPs

Year	Total Cost
2010/11	\$37,554,730
2011/12	\$40,919,020
2012/13	\$41,225,145

Table 9 shows that funding for Toronto SNPs comes from a variety of sources and has almost doubled since the 2004/05 school year. By combining the 2010/11 data from Table 8 and 9, Figure 4 below, demonstrates that there was a theoretical funding gap of over \$25 million (67%). In reality the funding gap would not have been slightly smaller because local programs sometimes receive food and food-related donations, which are not reflected in their financial statements. However, it is safe to say that these donations do not nearly represent the 67% funding gap.

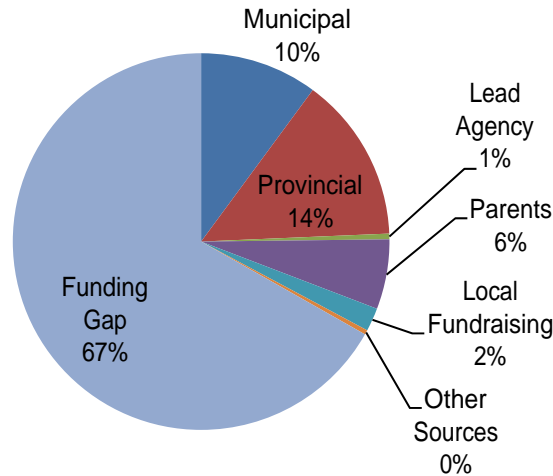
Program revenues have never provided sufficient funding for the SNP to operate to its maximum capacity (i.e. feed all participants according to the plan established at the time the funding application is submitted).

Table 9: Sources of Funding (2004 – 2011)

	2004/05	2005/06	2006/07	2007/08	2008/09 ^{††}	2009/10	2010/11
Municipal Grant ⁷⁴	\$2,499,340	\$2,599,340	\$2,799,340	\$2,799,340	\$2,799,340	\$3,255,327	\$3,796,576
Provincial ^{§§} Grant	\$1,837,501	\$1,439,455	\$1,444,008	\$1,444,008	\$5,248,394	\$5,336,508	\$5,336,508
TFSS Fundraising ⁷⁵	247,295	180,670	87,765	75,941	411,468	235,702	183,977
Parental Contributions ⁷⁶	1,256,886	1,403,696	1,166,976	1,229,563	1,529,463	1,825,450	2,252,649
School / Local Fundraising ⁷⁷	474,900	476,063	621,559	673,390	620,249	745,700	752,743
Other Sources ⁷⁸	20,665	40,349	31,495	72,648	25,712	68,103	147,688
Total Reported Revenue	\$6,336,587	\$6,139,573	\$6,151,143	\$6,294,890	\$10,634,626	\$11,466,790	\$12,470,141
Annual % Increase (Total Reported Revenue)		-3%	0%	2%	69%	8%	9%
% Increase compared to 2004/05 (Total Reported Revenue)		-3%	-3%	-1%	68%	81%	97%

^{††} During 2008/09 the province significantly increased funding as part of its *Poverty Reduction Strategy*

^{§§} Includes funding for administration, community development and program support.

Figure 4: 2010/11 Aggregate SNP Budget

Local Program Costs

As required by the 2008 *Ontario Public Health Standards*, each year public health units must calculate and report the local cost of the Nutritious Food Basket (NFB), which is Ontario's standardized food costing tool used to measure the real cost of healthy eating within the public health unit's geographic jurisdiction. TPH collects data from multiple grocery stores across the City; the information is used to promote and support the development of policies to increase access to nutritious food. During the period 1999 - 2009, the NFB in Toronto rose by 37%. In 2011 the cost of the NFB rose by 4.6% over 2010. The cost of fruits and vegetables, which SNPs rely heavily upon, frequently rises more than the cost of the overall NFB, placing an even greater funding burden on local SNPs.

Food purchases make up the bulk of SNP expenditures. Factors impacting an individual SNP budget include: meal type (snack or meal), number of students served in the program, the age of students served (elementary or youth), and the number of days the program operates.

For SNP budget purposes, TPH provides the cost per serving for each meal type for Toronto SNPs. The cost per serving is adjusted periodically based on the NFB.

Table 10: SNP Costs per Serving (2011/12)

Food cost only:	Elementary programs	Youth programs
Breakfast/Morning Meal	\$1.02	\$1.59
Lunch/Dinner	\$1.59	\$2.49
Snack	\$0.91	\$1.31
Total food cost (including non-food items to prepare and serve food):	Elementary programs	Youth programs
Breakfast/Morning Meal	\$1.46	\$2.27
Lunch/Dinner	\$2.27	\$3.56
Snack	\$1.30	\$1.87

7. SNPs in Toronto

The average elementary breakfast or morning meal program in Toronto serves 282 students. The average school year consists of 180 operating days. Table 11 presents a typical SNP budget, assuming the school is provincially designated (i.e. therefore receives the higher provincial contribution rate).

Table 11: Typical Elementary School SNP Budget

Costs:		Revenues:	
# of Students Served	282	Municipal Grant ^{***}	\$7,366.95
x Operating Days	180	<u>Provincial Grant^{†††}</u>	<u>7,997.66</u>
<u>x Cost/Serving</u>	<u>\$1.46</u>	Total Government Grants	\$15,364.61 20%
Total Food Related Costs	\$74,109.60	Funds to be Raised Locally	\$58,744.99 80%

In other words, in this typical school SNP budget, the school would have to raise approximately \$60,000 to operate its program to full capacity.

In an attempt to fund the 80% balance required, this local SNP program would seek contributions from a variety of sources, including, but not limited to:

- Parents
- Education sector unions
- Local faith based organizations
- School fundraising
- Teachers
- Local businesses
- Local charities
- Other NGOs

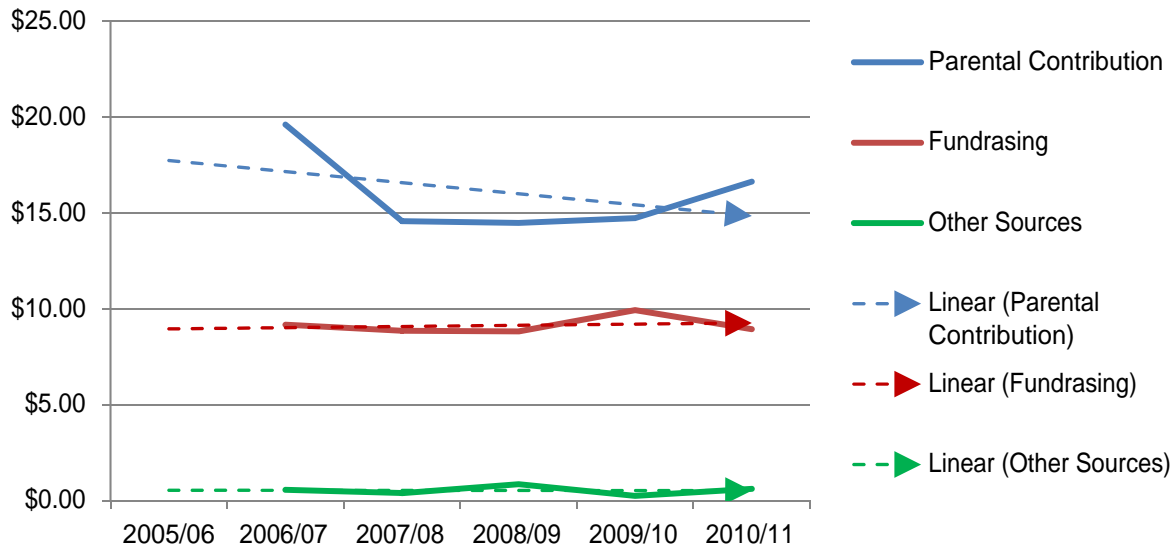
Parental Contributions, Fundraising and Other Donations

Although programs are not permitted to insist on parental contributions, they are required to inform parents of the cost of running the program, and encourage parental/student contributions in a non-stigmatizing manner. Parental contributions have decreased significantly over the years, and the linear trend line (depicted by the dashed lines) in Figure 5 below predicts that this will continue in the future (assuming all factors are constant). (Note there was an unanticipated increase in parental contributions during 2010/11. Although there is no known cause for this increase, it may be the result of the increased media profile that SNPs received during the City's 2012 budget deliberation process, since the municipal SNP budget was greatly debated.) The overall downward trend of the parental contributions is likely due to the fact that since 2008, the province has prioritized its funding to programs in designated school communities, which are frequently in lower socio-economic areas, as well as the declining disposable income experienced by the population in general. Hence, it is reasonable to assume that where socio-economic factors are challenging, students and parents find it more difficult to contribute financially.

^{***} Based on 9.6719465% funding rate for 2011/12

^{†††} Based on 10.5% funding rate for 2011/12 for designated site

Figure 5: Reported Non-Government Contributions per Participant per Year⁷⁹



Fundraising occurs at two levels within the program. Major fundraising occurs at the foundation level - TFSS and AFL both undertake initiatives to solicit donations, sponsors, and organize major events. Local programs are also encouraged to fundraise at the school level; however, this is becoming more challenging as the years pass.

Within the school environment, fundraising is an effective parent engagement strategy. As indicated in the "2010 Report on Ontario's School Councils", 89% of schools fundraise for many causes – and the amounts of fundraising vary significantly from school to school. Some schools have the capacity and the ability to raise as much as \$200,000, but others don't fundraise or raise small amounts.⁸⁰ This leads to inequities among schools: "wealthier neighbourhoods have the capacity to raise thousands of dollars to enrich their local school's programs, while schools in lower-income areas have fewer parental resources to rely on."⁸¹

Collectively, within Ontario, in 2008/09 school-generated funds⁺⁺⁺ were staggering (over \$592 million), with the TDSB and the TCSB reporting over \$44 million and \$22 million respectively.⁸²

Ontario school councils report raising funds for a number of causes, as depicted below.

Table 12: Common Causes for School Fundraising⁸³

Fundraising Cause	% of schools
Field trips	67%
Sports	64%
Arts or music	61%

⁺⁺⁺ Monies raised by fees, fundraising, vending machines, donations from businesses and other revenue sources

Fundraising Cause	% of schools
Classroom supplies, textbooks or computers ^{§§§}	56%
Library books	53%
Playground	47%
Renovations, additions and/or upgrades to the school	15%

Clearly, parents of Ontario students are faced with numerous requests for donations and school fees. These competing demands for parental contributions often make it difficult for local SNPs to secure funding from parents.

Consequences of a Budget Shortfall

As programs proceed throughout the year, local programs report that budget shortfalls become more evident. It is believed that as potential shortfalls loom, programs do not fully meet the Nutrition Standard (i.e., decrease the number of food groups offered; decrease the number of servings; decrease the serving size; trade off more costly items such as milk for less costly items such as crackers); decrease the number of operating days (i.e., start later in the year, stop earlier in the year, or reduce the number of days per week); and/or reduce the number of program participants.

In the 2010/11 school year, TPH dietitians visited 627 of the 684 municipally funded programs. Over the course of the year they found that 50% of programs met the TPSN Nutrition Standard in all categories (food group, number of servings, serving size). However, looking more closely, it was revealed that 80% of programs actually met the TPSN Nutrition Standard in 2 of the 3 categories, but offered smaller serving sizes than required. By offering smaller serving sizes, programs were able to stretch their budget, while still providing some of the key nutrients required.

In 2009/10, using the TPH dietitian visit to programs as a 'snap shot in time':

- 16 programs (3%) were not running (although these visits may have been early in the school year, when programs had not yet started),
- 62 programs (12%) expressed financial concerns,
- 110 programs (21%) were feeding fewer students than reported on the original application,
- 37 programs (7%) were operating for fewer days per week (could be due to budget or volunteer availability),
- 30 programs (6%) were offering a different program (e.g. different meal type) than funded for.

The TPH dietitian data revealed that overall, **37% were not operating their programs as outlined in their original applications.** *However, one must exercise caution when interpreting this data since it is based on single day site visits and may not necessarily reflect ongoing trends or exclusively link to budget*

^{§§§} Recent changes in school fundraising guidelines prohibit fundraising for items which are publicly funded, like classroom supplies, and textbooks. See <http://www.edu.gov.on.ca/eng/parents/Fund2012.html>

shortfalls. Other factors could be availability of volunteers on a given day or the availability of storage and preparation space. On the other hand, anecdotal input provided by TPH dietitians and FoodShare community development staff support the findings that on any given day, there are programs struggling with budget shortfalls.

Recent data provide to TFSS by the individual local SNPs substantiates the dietitian and community development staff findings⁸⁴:

- It is estimated that 38% of programs within TFSS' jurisdiction^{****} are operating for fewer days per week than planned;
- Overall, 139 programs within TFSS' jurisdiction (38%) close earlier than anticipated:
 - Approximately 10% of programs (i.e. 36 programs) close before or during the first week of April;
 - Approximately 7% of programs (i.e. 24 programs) close at the start of May; and
 - Approximately 22% of programs (i.e. 79 programs) close at the start of June,
- TFSS estimates that these 139 programs would require an additional \$595,200 in revenue (funding) to remain open for the planned duration.

Assuming the Catholic programs experience similar results, overall there would be approximately 174 sites which close earlier than planned; to continue operating until the end of the school year as planned, these programs would require an additional \$744,000.^{†††}

In instances when a budget shortfall is inevitable, school programs turn to their charitable foundation for emergency funding (TFSS, AFL), or their school council. And unfortunately, in some cases, programs must close.

School and Volunteer Commitment

Information obtained during consultations with FoodShare Community Development Workers, TPH dietitians, Local Program Coordinators and volunteers all indicate that the level of school commitment to the local SNP has a large bearing on the success of a SNP meal program. This is evidenced by programs which have traditionally been successful, but have started to struggle when staffing changes occur within the school. Programs sometimes struggle when a principal who understands and believes in the benefits of SNPs transfers or leaves the system, and is replaced by a principal who is not familiar with the program benefits and/or has other school priorities.

^{****} TFSS maintains data related to programs operating in TDSB, French, Muslim and Jewish sites. These programs represent 80% of all municipally funded SNPs in Toronto. Data for the balance (20%) of municipally funded SNPs in Toronto is maintained by AFL.
^{†††} Data extrapolated based on the fact that TFSS represents 80% of program sites; AFL represents 20%.

The commitment of other school staff is also critical, including: the administrative/clerical staff (who frequently are involved in maintaining accurate financial documents), the janitorial staff (who frequently assist with lunch area set up and clean up), and the teaching staff (who sometimes build healthy eating into their curriculum, and/or participate in running the SNP). The commitment of teaching staff is particularly important in programs where food is delivered directly to the classroom.

Volunteers are critical to Toronto SNPs – they are the heart and soul of local programs. Without committed volunteers, local programs cannot survive because there are insufficient funds to operate the program on work for pay basis. In many cases, the Local SNP Coordinator is an unpaid volunteer. Volunteers are vital to food preparation, delivery, serving, and fundraising. For many, the SNP volunteer opportunity is a key method of reducing social isolation, increasing community integration, increasing English language skills, and is also a method of food skill development, which may lead to future employment. In 2010, student nutrition programs provided job skills training and social connections for 2,400 volunteers, who contributed approximately 250,798 volunteer hours to the local school programs.

Infrastructure and Space

School kitchen infrastructure and space are critical ingredients to optimizing local SNPs. Although there was some provincial funding provided a number of years ago, space within schools for SNPs has been squeezed due to other emerging priorities, equipment has frequently fallen out of good repair, and an adequate maintenance and replacement program has not been implemented due to the lack of capital funding.

Although approximately 75% of the local SNPs participate in some form of bulk purchasing such as the TDSB milk program, further bulk purchasing is very difficult to achieve at the present time. Due to the lack of storage space and equipment, it is estimated that most local SNPs currently have the ability to safely store no more than one week of food to avoid the food safety risk of infestation.

If infrastructure, space and equipment were improved, local SNPs could optimize opportunities, resulting in greater purchasing efficiencies, such as:

- increasing participation in bulk purchasing programs,
- increasing purchase quantities of local sale items, especially high-demand culturally-appropriate food items in SNPs where student populations are predominantly one ethnicity, and
- accepting and storing an increased amount of donated items.

Currently a project is underway with FoodShare and TPSN through the Greenbelt Fund (Broader Public Sector Investment Fund Promoting Ontario Food). FoodShare is developing a model to provide local food to 1/3 of the SNPs through FoodShare's non-profit produce hub.

Without adequate food preparation areas SNPs must rely more heavily on pre-packaged, single serving foods (such as yogurt tubes, cheese, etc) and single serving utensils. Ultimately, this results in:

- higher costs to the program,

7. SNPs in Toronto

- less food variety,
- fewer food preparation skills and food knowledge being transferred to students, and
- contradictory messaging relating to increased packaging waste, especially in "green schools".

8. Measuring Toronto SNPs against the "Gold Standard"

Given the "gold standard" presented earlier, and an understanding of SNPs operating in the City of Toronto, an evaluation of Toronto's SNPs can be made.

Program Strengths	Program Weaknesses
<ul style="list-style-type: none"> ✓ There has been exponential growth in programs over the past 20 years, demonstrating the partnership's ability to manage the current system ✓ In 2010, municipal contributions helped approximately 130,000 Toronto students (over 40%) with increased access to healthy nutritious foods ✓ Within a given school, SNPs are generally operating non-stigmatizing manner in that the programs do not centre out individual students ✓ Programs contribute to the nutritional intake of participating students ✓ 63% of breakfast programs meet the Nutrition Standard (meet the required number of servings, the appropriate food groups and the correct serving size); 2010/11 ✓ Programs promote the consumption of vegetables and fruits (95% of the SNPs offer vegetables and fruits) ✓ The majority of programs operate in schools/communities where the most nutritionally at-risk students live ✓ Students are frequently provided with healthy nutritious foods they might otherwise not have encountered ✓ Students are frequently introduced to a variety of ethno-culturally diverse foods ✓ The programs provide a mechanism for newcomer adults and students to integrate into the community and school systems ✓ The programs are community driven, locally designed and operated; so where homogeneous ethno-cultural population pockets dominate a community, SNPs are culturally sensitive and appropriate ✓ Overall, programs have been successful at attracting 	<ul style="list-style-type: none"> ✗ There is a lack of public awareness of the benefits of Student Nutrition Programs for students ✗ The importance of food and nutrition crosses all socio-economic boundaries; yet SNPs have largely been promoted and perceived as a method of 'feeding hungry children' ✗ The existing local SNPs are vulnerable and must frequently modify (reduce) their program to match their existing revenues, resulting in a reduction in the benefits which could be achieved ✗ The programs are not available in all schools in the city, so many students do not benefit from the positive health, learning and behavioural outcomes that have been documented ✗ Government funding sources for SNPs are minimal and limited (see typical elementary school SNP budget in Table 11), leaving local programs vulnerable because they are dependent on other funding sources which frequently are not reliable or sustainable ✗ There are no federal contributions to the programs ✗ The funding model is not realistic in areas where SNPs are implemented most frequently; the 'levering' concept of a partially-funded model is best suited to demographic areas where income is average to above average. In other words, the model relies on financial support from communities, but these communities are often vulnerable and marginalized by low income ✗ While most schools fundraise, there are many needs within the schools competing for limited funds ✗ Food for students is not a fundraising priority within the school environment ✗ The ability of parents to contribute to SNPs is further eroded by the increasing requirement for students to pay other school fees such as activity fees, lab fees,

8. Measuring Toronto SNPs against the "Gold Standard"

Program Strengths	Program Weaknesses
<p>and retaining dedicated, committed volunteers, who minimize program delivery costs</p> <ul style="list-style-type: none"> ✓ The programs reduce the social isolation of a segment of the population who are frequently marginalized and vulnerable ✓ Approximately 75% of the programs participate in some form of bulk food purchasing, such as the milk program offered through TDSB or fruits and vegetables through FoodShare ✓ Local purchasing is also significant since individual programs capitalize on local sales and seasonal foods ✓ Local communities benefit economically from local purchasing ✓ The programs are governed by a partnership of committed organizations ✓ The program administration cost is maintained at a very low level due to in-kind contributions from partnering agencies ✓ The partnership model ensures that in-kind partner staff resources provide a coordinated, integrated, consistent, and reliable level of service to each SNP ✓ The partnership model leverages financial and community support ✓ Local programs have access to experts offering training and direction in the areas of menu planning, food safety, purchasing, budgeting, book-keeping, fundraising, volunteer recruitment and retention ✓ Through the partnership, the programs provide some training and knowledge transfer to coordinators and volunteers, thereby increasing their skill set and future marketability ✓ Evaluations and studies currently underway in Toronto are producing results consistent with the documented evidence regarding the positive health, learning and social/behavioural outcomes of SNPs 	<p>library fees, sports fees</p> <ul style="list-style-type: none"> ✗ As more schools in low income areas establish SNPs, support from local businesses becomes diluted ✗ The programs often operate in isolation of the school curriculum; SNPs are generally not integrated into school life; instead, SNPs are an "add-on" program ✗ In communities where income is not an issue (therefore parental donations are possible), households often have two working parents, which can make it difficult to find consistent reliable parent volunteers. On the other hand, in communities where income is less secure, there is often a high rate of unemployment, making it easier to find volunteers but more difficult to obtain parental donations ✗ Overall, 50% of the programs are not always meeting the full Nutrition Standard, however 80% met two out of three categories (2010/11) ✗ In many cases, the kitchen, equipment and food storage infrastructure in the schools is inadequate. This limits the creativeness of the menus, and results in higher food cost due to an increased reliance on prepared and packaged foods (e.g. cheese sticks, single serving foods) ✗ Local programs generate and receive funding from a variety of sources; hence there is a lack of transparency regarding exact program costs, funding amounts and revenue sources at the local program level – this makes it difficult to accurately assess the extent of the funding problem ✗ The rate of growth in the number of programs has been so rapid, especially since 2008, that the governance and administrative structures may benefit from added skills and resourcing ✗ The roles of the various partners is not always clear (e.g. foundation versus school board) ✗ Despite the remarkable achievements of the Toronto Partners for Student Nutrition, the partnership does not have the required profile to engage key private, public and voluntary sector leaders to provide input to assist in the development of a sustainable funding and growth model

9. Key SNP Issues in Toronto

Optimizing the Municipal Investment

Although the Province has defined specific criteria for its 'enhanced' funding model (i.e. as of 2008), the criteria to obtain municipal funding has been less prescriptive. The municipality contributes to the food portion of breakfast, morning meal, snack, lunch, and a small number of dinner programs. The City is providing approximately 9% of the required funding per meal because the City funds all meal types, and the number of programs and participants has been increasing (reducing the funding on a per student basis). Essentially, the City has providing more programs with smaller and smaller grants.

With the growing body of evidence indicating the importance of breakfast, funding all program types may not be the best possible investment for the City in the long term.

In the past, all programs applying for municipal and provincial funding were funded, although not at a predetermined funding level. In other words, the "funding pie" was split into smaller and smaller slices depending on the number of applicants (and the number of program participants each applicant had). The resulting dilution of funding per student has ultimately caused significant sustainability issues for many programs.

In the past few years a moratorium has been placed on new programs to combat this issue. However, all the existing programs have been funded, regardless of the changing socio-demographics of the communities in which the schools exist.

A solid long term allocation strategy is required which establishes sound criteria to maximize the benefits obtained from the municipal investment.

Currently, there are some programs in communities which are considered to be of a socio-economically mixed or middle class status, which receive the same level of municipal investment as schools in the most socio-economically challenged, nutritionally riskiest communities.

Furthermore, there are program sites which are operating multiple programs at the same site (e.g. combinations of breakfast, morning meal, morning snack, lunch, afternoon snack).

Generally speaking, the programs in the mixed or middle SES communities are very successful and not financially challenged. Parental contributions are consistent and reliable, and the programs are stable. ***The success of these programs suggests that given adequate funding, which may look different in different communities, the SNP funding model is viable.***

Based on the evidence previously discussed, all students can benefit significantly from SNPs, but the benefit is maximized by serving breakfast in school communities of lower SES.

Given the clear evidence of the benefits of breakfast consumption and the relationship between lower socio-economic status and poor/irregular breakfast habits, ideally, all funding allocations should be prioritized according to the concept of maximizing the benefits derived (i.e. only breakfast programs, with funds allocated to the neediest schools first). However, a significant realignment such as this would substantially jeopardize the sustainability of many existing programs, and therefore, is not recommended in the near future.

Financial Sustainability

The overriding issue for Toronto SNPs is financial sustainability. As programs have been added over the years, the percentage of government funding for each individual program has decreased (i.e. although the aggregate funding has increased substantially, it has been diluted over more individual programs and participants). This issue is aggravated by the lack of ability of parents to contribute, the lack of fundraising capacity in the schools, and the dilution of donations from other sponsors.

Clearly, an average elementary school program (see Table 11: Typical Elementary School SNP Budget) serving 282 students breakfast each day, finds raising almost \$60,000 to operate the program a daunting challenge, especially if the school is in a geographic area where low-income prevails. Given this funding scenario, it is not surprising that these local programs are vulnerable at best, and must resort to cost cutting measures (such as fewer days per week, fewer food groups, smaller servings, etc.) which jeopardizes the potential positive outcomes from SNPs.

The Growing Need for Local SNPs

This report has documented the extent of childhood poverty in Toronto. It has also documented the increased prevalence of childhood overweight/obesity, and the future impacts of this issue. Throughout the history of SNPs in Toronto, the need for the programs has been increasing. Due to limited financial resources available to the program, many schools have not actively been solicited to start local SNPs. However, the need for SNPs continues to grow, and can be categorized as follows:

a. Increasing number of participants – existing programs

During 2011/12 there was a very slight decrease in the number of local programs (programs sometimes close as schools merge, funding is too scarce, or volunteers are not available). However, due to the increasing needs of students within schools where SNPs operate, the number of participants continues to increase.

Although this growth causes further financial stress on the programs, one of the intrinsic values of the program is that within a school with an operating SNP "no student shall be turned away".

b. Existing local SNPs not receiving municipal funds

When the province identified its designated schools in 2008, the City developed a 5 year plan to ensure that funding would be available to incrementally provide municipal funding for these designated schools. As municipal financial pressures grew, this 5 year plan was postponed, so currently there are local SNPs operating which do not receive municipal funding (i.e. receiving only provincial funding). These programs are particularly vulnerable due to the fact that they are in designated areas (likely receiving limited parental contributions and other donations), and receive the least amount of government funding.

c. Schools requesting to start a program – outstanding waiting list

Due to the moratorium on establishing new SNPs, a number of schools have submitted applications to start local SNPs, but have been denied government funding.

d. Schools where students could benefit from SNPs, but have not applied for the program

Many schools that are not provincially "designated" and have not applied for local SNPs have students who can benefit from the positive outcomes from breakfast SNPs. Due to limited funding, TPSN efforts have not been focussed on engaging these schools. To assess the macro need for SNPs, the needs of these schools and these students should be considered.

It is clear that without increased funding, the SNP program cannot grow beyond its current state to meet the needs of Toronto students. The number of programs may actually decline as local programs find it increasingly difficult to fundraise and to secure parental contributions and donations, given increasing food costs. Sustainable funding strategies must be developed if Toronto students are to benefit from the positive health, learning and behavioural outcomes resulting from SNPs.

10. Future Directions

Focussing the Current Municipal Investment

As this report demonstrates, there is a powerful body of evidence which substantiates the importance of the first meal of the day:

- There is strong evidence associating breakfast eating with health outcomes (especially obesity prevention and increased cardio respiratory health),
- There is strong evidence associating breakfast eating with learning outcomes, and
- Breakfast and morning meals are less costly than lunches and dinners.

This review validates the Provincial Strategy for SNP in 2008 which provided expanded funding for breakfast or morning meals in designated schools.

This review provides compelling evidence that in the absence of SNPs in all schools for all students, there is sound logic in focussing limited resources to the communities where a high percentage of the students are at higher nutritional risk (i.e. lower community-level SES).

Most local SNPs find it challenging to continue to operate with the existing funding model. As outlined previously, at best, local programs receive 20% of program funding from government (provincial and municipal) contributions, leaving 80% for the local program to fund. (Table 11 showed that for the average elementary school breakfast or morning meal program in Toronto, the program must find approximately \$60,000 to operate for every day of the school year). Efforts must be made to alter this funding model.

Table 3: Typical SNPs in Ontario in 2010 shows that six of the nine Ontario jurisdictions contacted for this review are all implementing allocation strategies to stretch available SNP funds. These strategies include:

- Eliminating funding for lunch and dinner programs (which in Toronto could result in eliminating 117 lunch programs serving 10,302 students, and eliminating 5 dinner programs serving 310 students),
- Only funding 1 program per school in non-designated sites,
- Only funding 1 program per school, regardless of whether the site is designated or not,
- Maximum and minimum grant caps, and
- Smaller percentage allocations for non-designated sites combined with an additional grant to designated sites.

Each of these strategies would destabilize the local SNPs which are currently operating in Toronto. Nevertheless, as opportunities arise, Toronto can maximize the benefits derived from its investment in SNP by *focusing on breakfast/morning meals, and prioritizing funding to higher need school communities.*

Future Options to Expand SNP

In addition to improving the funding (and hence the sustainability) for the existing SNPs, the City should consider different strategies to expand the SNP. Ideally, all Toronto students who would benefit from a breakfast SNP should have one available so they can experience the positive health, learning and behavioural outcomes from the program. The evidence and literature indicates:

- Hunger/poverty is only one of the numerous reasons children and youth arrive at school without eating breakfast,
- Students of all socio-economic situations experience the benefits from breakfast SNPs,
- Students perform better if they eat closer to test-taking times, and
- Breakfast consumption helps to maintain a healthy weight.

That being said, options to make the program available to more students should be explored. Two key expansion options exist.

Option 1: Offer breakfast SNPs only to individual students in need

As reported earlier, 32% of Toronto's children live in households with family incomes below the Before Tax Low Income Cut-Off. Food Banks Canada reports that in Ontario, 38% of those receiving food were children and youth under the age of 18. Children living in poverty are at risk of being food insecure, and studies show that they have a higher propensity to skip breakfast, and subsequently are at higher risk for not achieving their maximum potential in terms of health, learning and social outcomes. One option would be to identify these students and they would be deemed "eligible" for free morning meals.

Eligibility could be determined by some type of means-test, or identification by school administration or faculty.

On first glance, this option seems logical in that it directs scarce resources (funding) only to those students who live in poverty - but this option has not proven successful in other jurisdictions.

The United States, Wales, and England have all used this type of system. As outlined in Chapter 3 (International Student Nutrition Programs), in Wales, where eligible low income students can obtain a free lunch, 26% of them opt to forgo the free meal to avoid the risk of ridicule from their peers. The National Assembly of Wales has stated that "...stigma is more than just an issue for discussion – it is the reason for their hunger."⁸⁵ In England, in over 75% of secondary schools, students who receive free school meals can be identified by other students. In some US school lunch programs, students receiving

10. Future Directions

free meals must use a different line up in cafeterias, resulting in tremendous stigmatization and reduced participation.

The literature strongly indicates that specifically 'targeting' individuals in this population will not result in positive outcomes. School age children generally have an incredibly tenacious desire to 'belong' to their community, to 'fit' it. Students are highly influenced by peer pressure; they do not want to be centered out in any negative manner, such as being 'poor' or 'hungry'. Targeted SNPs aimed at individuals will not reach the students who are often most vulnerable and nutritionally at-risk.

This option has the very real danger that the students who need the program the most often go without.

Table 13: Option 1 Strengths & Weaknesses

Offer Breakfast SNPs only to Individual At-Risk Students in Toronto	
Strengths	Weaknesses
Directs scarce funds to those most at risk	Programmatically difficult to implement
Requires less funding	Very stigmatizing. Many international programs follow some form of this model (e.g. US), but have suffered due to stigmatization
	Will result in low participation
	Very difficult to disentangle the existing program to establish a new program
	Will not likely create large scale permanent behaviour changes since it will not change community norms
	Change is not sustainable
	Blames the victim (i.e. the low-income student)
	Increased administrative burden
	For individual students who are targeted, most require a high subsidy rate to have any impact (i.e. program must be free or affordable to them).

Option 2: Expand breakfast SNPs prioritized to higher needs schools

When MCYS introduced its enhanced funding criteria in 2008, it adopted an approach whereby it provided expanded funding for breakfast programs in higher need schools which were called "designated communities". This is often referred to as a "selective" approach to prevention, because it selects subsets of a population in which many of the members of the subset share the same characteristic. In other words, the "designated communities" were selected because they were identified as having many students who are potentially at risk of poor nutrition.

10. Future Directions

This is an excellent measure that can be incrementally implemented with a long term vision of operating SNPs in all Toronto schools so that students who would benefit can achieve the positive outcomes of SNPs.

By implementing incremental growth in SNPs prioritized by need, the maximum benefits will be derived early. Those communities with the highest incidence of breakfast skipping, obesity, and poverty would have SNPs available to improve their health, learning and behavioural outcomes.

Within a given school, any student who chooses to participate in the program has the option of doing so. This way, individual students are not "targeted" or identified as being poor or at-risk. All current literature substantiates this as a best practice to increase participation, which improves the odds that the neediest of students will use the program.

Everyone in the community/school is treated the same and can participate in the program, regardless of ability to pay or SES; no one is turned away. This option has the advantage of directing scarce funding resources to those schools/communities in greatest need. One must recognize that the shortcoming of this option is that there will be some nutritionally at-risk students in other schools which do not have SNPs. This shortcoming can be overcome as the program expands.

Table 14: Option 2 Strengths & Weaknesses

Operate SNPs for all Students in all the Highest Need Schools	
Strengths	Weaknesses
Is consistent with the provincial strategy	There will be students with a lower SES (and therefore are statistically more prone to skip breakfast) who will not be in the selected school communities and hence will not benefit from the program
Is relatively easy to implement	Still presents an element of stigmatization, at the community level as opposed to the individual level
Captures a large percentage of the student population who have a lower SES and therefore are statistically more prone to skip breakfast	There is a tendency to continue to fund school communities over time, even if the demographics of the community have changed over a number of years (i.e. it is difficult to remove government support once it is provided)
Does not stigmatize the individual	
Relatively easy to administer	
Easy to expand if and when additional funding becomes available	
Will result in a higher degree of participation at the local program level due to the fact that individual students are not identified as being at-risk or needy. Also, participation often increases because the program is imbedded into the school (e.g. meals served in classrooms or lunchrooms where everyone eats together).	

11. Conclusion

This report demonstrates that Ontario struggles with the same issues and challenges that other countries face with respect to Student Nutrition Programs. In many ways, Ontario leads other nations with respect to the adoption of many best practices. While most other countries in the developed world have national food strategies and federal contributions towards their school food programs, most do not have fully funded universally accessible programs - most operate on a cost-shared basis. This cost-shared formula, including parental contributions (where possible), appear to be a best practice. In fact, through the review of international SNPs, it appears that SNPs which are fully government funded are often not as successful as those which are locally driven, with costs shared among several partnering bodies.

Eating habits established in childhood and adolescence form the basis of eating patterns in adulthood. Today, children are consuming fewer fruits and vegetables and childhood rates of overweight and obesity are increasing to the point where the issue is now a long term public health concern (obesity is related to numerous chronic diseases including diabetes, cancer and heart disease). These long term chronic diseases are already burdening the health care system and will place a growing burden on future health care costs. Studies clearly link routine breakfast consumption as a preventative obesity measure.

Schools provide an ideal environment to influence students' eating habits since students spend many of their waking hours at school. Furthermore, students are highly influenced by their peers, and hence healthy food habits can be reinforced at school. Commensality (the sharing of meals at a table) in schools also promotes the desirable benefits of improved social behaviour.

The literature reviewed for this report provides strong evidence that regular breakfast consumption is a key component in improving student health, learning and behavioural outcomes. Breakfast is a vital, cost effective meal which supplies much required nutrients after a period of sleep. Recent studies, including that released in May 2012 by the TDSB, provide concrete evidence of the positive results from offering free (or voluntary contribution) breakfast and/or morning meal programs to all students in schools where students will benefit from the positive outcomes.

This report demonstrates that the SNP model as it exists is viable and appropriate for Toronto *if programs are adequately funded*. Investing in the health, learning, and behavioural futures of Toronto's children and youth is a shared responsibility: it is a community initiative that involves multiple partners, levels of government and parents.

SNP presents a tremendous opportunity for the public, private and volunteer sector leaders of this City to combine their joint knowledge and resources to design a long term sustainable funding and growth model for SNPs for all Toronto schools that would benefit from the program.

This report identifies the need for sustainable funding sources, suitable local program infrastructure, and large scale efficient food procurement and distribution systems. This report substantiates the practice of incrementally prioritizing program funding to local breakfast and/or morning meal SNPs in communities of greater socio-economic need. As opportunities arise, through increased grants or donations, or through programs which opt to close or no longer require financial assistance, funding should be reallocated to higher need schools.

Based on the documented evidence, this review provides a clearer understanding of the 2008 Provincial direction to provide enhanced funding for breakfast and morning meal programs for students in

11. Conclusions

designated areas. While all school meals play an important role in a student's day, maximum health, learning and behavioural benefit is derived from breakfast and morning meal programs.

There is a growing need for these programs throughout the City as seen by the increasing number of student participants within existing SNPs, the vulnerability of local SNPS not receiving municipal funding, and the growing waiting list of schools applying for new or augmented SNPs. All Toronto children and youth attending schools that will benefit from SNPS deserve the opportunity to experience improved health, learning and behavioural outcomes. *Ideally, all schools that would benefit from a SNP will have a breakfast/morning meal program in the future.*

Appendix A: Project Methodology

The review methodology included the following:

- **Meetings with Medical Officer of Health** – to verify the direction of the review, and to provide periodic updates and receive strategic advice
- **Regular Team Meetings** - with:
 - Director, Chronic Disease and Injury Prevention
 - Manager, Healthy Living (Child Nutrition lead)
 - Supervisor, Student Nutrition Program
- **Development and Approval of Project Charter** – to clearly identify the project purpose, goals and deliverables
- **Internal Documentation Review** –internal Toronto Partners for Student Nutrition (TPSN) Steering Committee minutes, sub-committee minutes and historic Board of Health Reports related to SNP
- **International Literature Review of Student Nutrition Programs** – conducted by Master level Nutrition Sciences student, under the guidance of a TPH nutritionist, to synthesize the peer reviewed data on administration and funding models and impacts on health and educational outcomes around the world
- **Relevant Subject Research** – extensive research related to school feeding programs, outcomes and effectiveness, obesity, poverty, breakfast consumption
- **Various Site Visits**–to observe a broad cross-section of programs throughout the City and to gain an understanding of the roles of the Community Development Animator and the TPH dietitian
- **Ontario Jurisdictional Overview** – collected information from 9 other Ontario jurisdictions to contrast and compare with Toronto SNP
- **Financial Review** – reviewed SNP income and expenditure summary statements from 2004 – 2009, including 18 individual program financial statements
- **Data Review** – reviewed data collected by TPH registered dietitians during their regular site visits, especially as it pertained to program challenges and observed program discrepancies. Also reviewed program data at the local SNP level
- **Consultations** - with:
 - TPSN steering committee members regarding the funding model, the governance model, and the concept of universality, financial oversight, and alternate grant allocation methods

- TPH dietitians who conduct SNP site visits
- FoodShare Animators who are the Community Development Workers for all of Toronto's SNPs
- Executive Director of Social Development Finance and Administration
- Ministry of Children and Youth Services
- Other organizations involved in funding or operating food programs for children and youth

Appendix B: International School Feeding Programs

The following table presents a synopsis of the information obtained from a review of school feeding programs in 19 countries in the industrialized world.

Australia, School Nutrition Program				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> • Contribute to improved school attendance and engagement by providing meals to children enrolled in Transition to Year 12 in communities in the Northern Territory • Provide for employment opportunities for local indigenous people 	<ul style="list-style-type: none"> • Department of Education, Employment and Workplace Relations (DEEWR) on behalf of the Australian government 	<ul style="list-style-type: none"> • Two sources of funding: DEEWR funds staff wages, infrastructure and operating costs • Parental contributions fund the cost of meals • Maximum parental contribution is \$35/week 	<ul style="list-style-type: none"> • No data 	<ul style="list-style-type: none"> • All programs must provide lunch, there is an option to provide morning and/or afternoon tea as well • The program is available to all children attending school from Transition to Year 12 in the 73 Prescribed Communities Participation is voluntary, although parents are strongly encouraged to participate • DEEWR works with communities to establish and fund program providers that will employ local workers to prepare and deliver the meals and to ensure adequate kitchen facilities and equipment are available
References: Australian Government, 2011				
Brazil, National School Meals Program (<i>Programa Nacional de Alimentacao Escolar - PNAE</i>)				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> • To cover at least 15% of the children's daily nutritional needs (calories, proteins, and other nutrients) • To improve children's learning capabilities • To foster healthy food habits in children and 	<ul style="list-style-type: none"> • Decentralized model whereby the federal Ministry of Education transfers funds directly to states or municipalities which are then 	<ul style="list-style-type: none"> • Ministry of Education transfers funds directly to states or municipalities • Federal funding is provided for the cost of food only – municipalities must fund all other program 	<ul style="list-style-type: none"> • No current information available • In 1997 46% of public school students participated 	<ul style="list-style-type: none"> • Lunch program • Provides free school meals to children in daycare centres, pre-school and primary school in the public school system • Designed to be a universal program; however, is self-targeting because students from families of lower income and educational levels are the students who attend public schools

Appendix B: International School Feeding Programs

<p>adolescents</p> <ul style="list-style-type: none"> • Secondary objectives: the promotion and preservation of local food habits and support of local food production 	<p>responsible for program implementation</p> <ul style="list-style-type: none"> • Each school must have a School Meals Council made up of government representatives, parents, teachers, and community members to govern and administer program 	<p>costs</p> <ul style="list-style-type: none"> • Meals are provided free of charge to all students attending public schools 		<ul style="list-style-type: none"> • The majority of meals are served in a cafeteria
<p>References: Rocha, 2009</p>				
<p>Chile, School Feeding Program (<i>Programa de Alimentacion Escolar –PAE</i>)</p>				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> • To provide meals for pupils during the school day • JUNAEB's mission: To facilitate the incorporation, retention, and success in the educational system of children and young people living in social, economic, or psychological disadvantage by delivering quality services that contribute to equality of opportunity in the educational process 	<ul style="list-style-type: none"> • The National Board of School Assistance and Scholarships (JUNAEB), an independent unit of the Ministry of Education operates the program • JUNAEB contracts private companies to provide school meals 	<ul style="list-style-type: none"> • Meals are free for low-income children • (funded by JUNAEB) • Combinational auction system is used to obtain the best price from vendors 	<ul style="list-style-type: none"> • No current information available • In 2000 approximately 1/3 of primary school students received meals 	<ul style="list-style-type: none"> • Lunch program • Program is not universal, but targeted to vulnerable students • In large schools, food is often prepared in central "Cook & Chill" kitchens and delivered to schools • The remainder of schools prepare meals onsite by conventional methods

Appendix B: International School Feeding Programs

References: Epstein, Henriquez, Catalan, Weintraub, & Martinez, 2002; McEwan, 2010				
Denmark				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> No formal program goals 	<ul style="list-style-type: none"> No organized school meal program Less than ¼ of schools have a school food system School food systems may be administered by the municipality, the school, parents or a combination of these three 	<ul style="list-style-type: none"> No federal financial support for school meals Less than 1/3 of municipalities fund school meal programs Most common funding model is for municipalities or schools to fund program establishment and operations, while parents pay for food costs 	<ul style="list-style-type: none"> Approx. 20% of students purchase meals at school 	<ul style="list-style-type: none"> Tradition of bringing packed lunch to school 50 schools offer students the opportunity to purchase school meals at a small school canteen Daily managing is done by teachers and upper year students Food is produced in a central kitchen and distributed to schools each day Approximately 50% of food is organic
References: Hansen, Schmidt, Nielsen, & Kristensen, 2008				
England				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> Purpose of new standards for school meals is to address childhood obesity and provide a nutritional safety net for children on free school meals 	<ul style="list-style-type: none"> Local Educational Authority (LEA) is responsible for program governance 	<ul style="list-style-type: none"> Funding is transferred to LEA by the federal government LEA distributes funding to schools LEA is responsible for providing free school meals to eligible students (students whose parents receive Income Support or Income based Jobseeker's Allowance) 	<ul style="list-style-type: none"> 41.4% (2009-2010), primary schools 35.8% (2009-2010), secondary schools 	<ul style="list-style-type: none"> Lunch program Majority of schools operate cash cafeteria systems, with students eligible for free meals generally receiving a token or voucher to use as payment in the cafeteria Catering is either contracted out to private companies or provided "in-house" by the LEA

Appendix B: International School Feeding Programs

References: Evans & Harper, 2009; Nelson, Nicholas, Wood, Lever, Simpson, & Baker, 2010				
Finland				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> The role of school meals is to be a pedagogical tool to teach good nutrition and eating habits as well as to increase consumption of vegetables, fruits and berries, full corn bread and skimmed or low fat milk. The objective is to maintain and improve pupils' health and well-being and to give them energy for their school work. 	<ul style="list-style-type: none"> Finnish National Board of Education Section 31 of the Basic Education Act states that pupils attending school must be provided with a...meal free of charge every school day. 	<ul style="list-style-type: none"> Municipal government (tax income) The average price of a school meal represents about 8% of all the education costs per pupil. 	<ul style="list-style-type: none"> 80-90% of students 	<ul style="list-style-type: none"> Lunch program Provision of school meals is compulsory. Each municipality is obligated to draw up a plan for pupil welfare that outlines the principles for arranging school meals School lunches are to provide approximately 1/3 of a child's daily food intake. Typically consist of: hot entrée, salad, bread, and milk Lunches are served in self-service cafeterias
References: Finnish National Board of Education, 2008; Sarlio-Lähteenkorva & Manninen, 2010				
France				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Ministry of Education 	<ul style="list-style-type: none"> Parents pay for meals –means-tested subsidy for low-income families 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Lunch program
References: Dubuisson, Lioret, Calamassi-Tran, Volatier, & Lafay, 2009				
Germany				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Education and school meals are the jurisdiction of 	<ul style="list-style-type: none"> May vary by state No data available 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> School meal provision is currently being revised due to the change to longer school days

Appendix B: International School Feeding Programs

	<p>the state</p> <ul style="list-style-type: none"> • Each state may use a different organizational structure for school meals 			
References: Strassner, Noelting, & Reimann, 2009				
India, Mid-Day Meal Scheme				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> • Improving the nutritional status of children in Classes I-V in Government, Local Body and Government-aided schools • Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities • Providing nutritional support to children of primary stage in drought-affected areas during summer vacation 	<ul style="list-style-type: none"> • Ministry of Education • Program is operated as a partnership between the state and national governments 	<ul style="list-style-type: none"> • Federal government provides staple grains a cash subsidy/child • State governments also provide a cash subsidy/child as well as stipends for cooks • States are required to contribute in order to receive central government funding 	<ul style="list-style-type: none"> • No data 	<ul style="list-style-type: none"> • Provision of a cooked noontime meal in all public primary schools is mandated by the Supreme Court as part of the nation's Right to Food
References: Chettiparamb, 2009; Winch, 2009				
Italy				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> • Guaranteeing and protecting children's health 	<ul style="list-style-type: none"> • Ministry of Health – produced guidelines for 	<ul style="list-style-type: none"> • Parents are charged for student meals, with each city publishing a maximum cost/meal 	<ul style="list-style-type: none"> • No data 	<ul style="list-style-type: none"> • Lunch program • 70% of catering service management is contracted to private caterers • Mid-morning snacks are to provide 8-10%

Appendix B: International School Feeding Programs

	<p>organic and local foods in school meals</p> <ul style="list-style-type: none"> Majority (90%) of schools are governed individually by 'Canteen Commissions' made up of teachers, students, parents, and external advisors 	<p>and cost/month</p> <ul style="list-style-type: none"> Meals are partially subsidized for low-income families 		<p>of a child's daily nutritional intake and lunches are to provide 35% of daily required nutrients.</p> <ul style="list-style-type: none"> Table service is the most common method of serving school meals Organic food is emphasized as a way to protect children's health
<p>References: Sonnino, 2009</p>				
<p>Jamaica, School Feeding Programme</p>				
<p>Program Goals</p> <ul style="list-style-type: none"> To improve regular school attendance among students from the poorest income quintiles Other objectives are to encourage regular school attendance, alleviate hunger, enhance learning capacity, serve as a source of income transfer, and provide nutrition education 	<p>Administration</p> <ul style="list-style-type: none"> Ministry of Education is the central procurer, producer, and distributor of food commodities 	<p>Funding Model</p> <ul style="list-style-type: none"> For cooked lunch, SFP partially subsidizes meal through a small cash grant and provision of selected commodities, students must pay remainder of cost Amount of student co-pay is determined by individual schools 	<p>Participation Rate</p> <ul style="list-style-type: none"> Poor quality data Indirect estimates show 43% of all students receive meals and almost 80% of primary and lower secondary school students receive meals 	<p>Description of Program Operations</p> <ul style="list-style-type: none"> Two program components: a cooked lunch (prepared on school premises) or a snack of a baked bun (Nutribun) and milk (delivered to schools) Schools may only offer one component to improve efficiency
<p>References: Nieves et al., 2009</p>				
<p>Northern Ireland</p>				

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Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> Objectives of Food in Schools Policy is to ensure that early years settings provide adequate opportunities for good nutrition and embed good habits in terms of healthy eating 	<ul style="list-style-type: none"> Education and Library Board (ELB) operate school meals service 	<ul style="list-style-type: none"> Department of Education (federal) provides funding to local ELBs Free school meal eligibility same as England 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Lunch program Operations similar to England
References: Northern Ireland Department of Education, 2009				
Norway				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> No organized school meal program 	<ul style="list-style-type: none"> Norwegian government subsidizes milk and fruit and vegetables, parents pay the remainder of the subscription price 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Tradition of bringing packed lunch to school Milk and fruit and vegetables can be purchased as part of subscription schemes Some secondary schools have canteens where hot lunch meals can be purchased
References: Loes, Koesling, Roos, Birkeland, & Solemdal, 2008				
Republic of Ireland, School Meals Programme (SMP)				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> To supplement the nutritional intake of pupils from disadvantaged backgrounds to allow them to fulfill their full potential within the education system and to reduce the risk of early school leaving 	<ul style="list-style-type: none"> Department of Social Protection (DSP) 	<ul style="list-style-type: none"> DSP provides funding directly to schools which operate their own school meals projects DSP only funds food costs, programs must cover any other costs 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Programs may provide breakfast, snacks, lunch, or dinner Two general options for food provision: contract with an external provider or program operator provides food
References: Morgan, 2009				
Scotland				

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Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> no data 	<ul style="list-style-type: none"> Local Educational Authority (LEA) is responsible for program governance 	<ul style="list-style-type: none"> Funding for school meals is provided to the LEAs by the federal government Costs of meals and subsidies provided vary between LEAs The Scottish Executive subsidizes the cost of milk provided to schools Free school meal eligibility same as England 	<ul style="list-style-type: none"> 46.1% (2010), primary and secondary combined 	<ul style="list-style-type: none"> Lunch program 36% of schools provide a breakfast club All primary schools participate in the Fresh Fruit in Schools scheme (free fruit to children in Gr. 1 and 2) Many schools have facilities to prepare and serve hot meals on the premises Other schools serve meals which are prepared at a central location and delivered to the school each day
References: Expert Panel on School Meals, 2002; The Scottish Government, 2010				
South Africa, National School Nutrition Programme (NSNP)				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> To provide well-balanced meals to learners in the hope that their concentration and performance levels will improve and ultimately influence their learning process 	<ul style="list-style-type: none"> Department of Education (provincial) Responsible for creating meal criteria and menus Manage procurement of services 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Lunch program Meals are prepared on school premises Program is not universal, targeted to at-risk students. Food handlers are generally volunteers or receive a very small wage
References: The Public Service Commission, 2008				
United States, School Breakfast Program and National School Lunch Program				
Program Goals	Administration	Funding Model	Participation Rate	Description of Program Operations
<ul style="list-style-type: none"> To safeguard the health and well-being of the Nation's children 	<ul style="list-style-type: none"> Food and Nutrition Service (FNS) of the 	<ul style="list-style-type: none"> USDA provides both cash assistance and donated food 	<ul style="list-style-type: none"> >30 million lunches served daily 	<ul style="list-style-type: none"> Breakfast and Lunch Programs Also provide School Milk and after-school snack programs not discussed in this report

Appendix B: International School Feeding Programs

<ul style="list-style-type: none"> • To encourage the domestic consumption of nutritious agricultural commodities and other food 	<p>United States Department of Agriculture (USDA)</p> <ul style="list-style-type: none"> • Within each State, the State educational authority is responsible for program administration 	<p>commodities to State agencies</p> <ul style="list-style-type: none"> • USDA funds are used to reimburse state school food authorities • Reimbursement rates vary depending on student eligibility for free, reduced price, or full price meals 	<p>(2009)</p> <ul style="list-style-type: none"> • 11.6 million breakfasts served daily (2010) 	<ul style="list-style-type: none"> • Majority of meals are prepared in on-site cafeterias • Schools keep records of the meals they serve at each price and then are reimbursed by the FNS, USDA
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Appendix C: Other Ontario Funding and Advocacy Agencies

There are a number of other organizations actively promoting, supporting and funding school feeding programs in Canada and more specifically in Toronto. This appendix provides a summary of these organizations.

Breakfast for Learning

Breakfast for Learning is a national non-profit organization which claims to be the nation's lead advocate for school breakfast programs. In the past, provincial funding to school programs flowed through this organization. Breakfast for Learning continues to provide grants to obtain food, pay staff, and purchase equipment. In 2008/09 Breakfast for Learning provided funding for breakfast, snack and lunch to 2,900 programs serving 222,000 children and youth in Canada. Breakfast for Learning has been successful at obtaining significant sponsors such as Presidents Choice, CIBC, and Imperial Margarine.

Funding is distributed through a grant application process. The organization has an online reporting system and programs have online accounts to view their previous applications. To be eligible for a Breakfast for Learning grant, programs must operate a minimum of 3 days per week and must serve a minimum of 45 students (or 20% of the school population). After-school programs are not funded.

Breakfast for Learning also provides child nutrition education resources and conducts research.

Breakfast Clubs of Canada

Breakfast Clubs of Canada is a national non-profit organization advocating for and supporting school feeding programs across Canada. In Ontario in 2010/11, 726 programs are supported serving 123,000 students. Breakfast Clubs of Canada is well supported by significant corporate donors including Costco, Walmart, Metro, Kellogg's, Minute Maid, Astral Media and Danone. Breakfast Clubs of Canada break the program eligibility criteria into two sets: mandatory and preferred, as follows:

Mandatory Funding criteria:

- Feed children in underprivileged areas
- Focus on school-aged children
- Meet requirements of Canada's Food Guide
- Located outside of Quebec

- Universal access
- Must operate in a school environment

Preferred criteria:

- Program operates 5 days per week
- Program receives parental contributions
- Environment fosters self-esteem and respect

The Children's Breakfast Club

The Children's Breakfast Club (formerly known as the Toronto Children's Breakfast Club) is a local non-profit organization established in 1984 to assist with providing meals to GTA school children. There are approximately 15 - 18 clubs operating in Toronto, varying from small programs of 25 – 30 students, to larger programs with 80 – 90 participants, serving 3,000 - 4,000 meals each week in priority areas of the city. The clubs operate universally, where any student in the community can participate, regardless of whether they contribute 25 cents per breakfast. Breakfast clubs operate in schools and in community locations such as community rooms in apartment buildings. Clubs are started at the request of schools or housing authorities, and are operated in partnership with the requesting agency. The requesting agency is responsible for providing space and equipment. The clubs also provide other activities such as arts and crafts, homework clubs, and sports outings.

The Children's Breakfast Club does not receive any public funding, but relies on private sponsors and donations. It does not undertake any direct fundraising, but sponsors and donors will fundraise on its behalf.

The Children's Breakfast Club employs one full time staff who coordinates the programs. Each individual breakfast club has one paid staff member responsible for ensuring that the Club's mandate is adhered to, the program is operational, and health and safety criteria are met. At each local program, the paid staff member is augmented by a number of volunteers who assist with food production, serving and other activities.

The Children's Breakfast Club reports that the cost per breakfast varies from \$0.55 - \$1.50, depending on the menu. Staff feel that the various bodies involved in breakfast programs should try to work together to eliminate duplication and optimize the programs.

Toronto Educational Opportunity Fund (TEOF)

TEOF was formed in 1980 to raise funds for school nutrition programs in the former City of Toronto (pre-amalgamation). TEOF worked closely with the former Toronto District School Board during this period of time (1980 – 1998). At the time of amalgamation, it was determined that the Toronto Foundation for Student Success (TFSS) would be formed as the arms-length charitable organization associated with the newly amalgamated City of Toronto. Subsequent to amalgamation, TEOF continued to actively fundraise, and now provides funding support to SNPs operating in inner City areas targeting Junior and Senior Kindergarten (JK/SK) programs.

TEOF is governed by a 12 – 18 member Board of Directors, most of whom are retired principals, teachers, custodians and administrators from the public school board. Most board members actively promoted SNPs in their former careers, and therefore had firsthand knowledge of the positive impacts of SNPs. TEOF is strongly supported by various labour organizations representing the education sector. Toronto Public Health has a staff member on the TEOF Board of Directors. This provides TEOF with up to date information regarding City and Provincial initiatives related to SNPs.

To generate funds, TEOF directly undertakes 3 major annual fundraisers: a golf tournament, an auction and a Chinese new year's dinner. The organization donates up to \$100,000 annually to schools for SNPs (\$70,000 - \$80,000) and to the food components (e.g. lunch) of some Parenting and Literacy Programs in TDSB schools (up to \$20,000).

TEOF uses the Learning Opportunities Index (LOI) to determine which school programs will be supported in any given year. For each JK/SK student in a TEOF funded SNP, TEOF will provide \$24.95 per school year. As can be expected, the LOI for schools changes from time to time, which indicates that the school's needs may be increasing or decreasing. Should it be determined that a given school is no longer in need of TEOF funding (i.e. other schools are needier), then TEOF will provide one full year notice if funding will be discontinued.

Funding from TEOF is flowed through TFSS (one cheque), who in turn flows the individual school grants to the programs as per TEOF's direction. In terms of communication, TEOF essentially operates in the background (flowing funding through TFSS), and school programs may not necessarily be aware of their funding level from TEOF, even though TFSS provides a letter to the programs indicating that funding is from TEOF. TEOF is considering implementing direct funding correspondence with schools to increase its profile and improve its fundraising capacity.

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