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# EVALUATING UNIVERSAL STUDENT NUTRITION PROGRAMS: METHODS, INDICATORS, AND OUTCOMES

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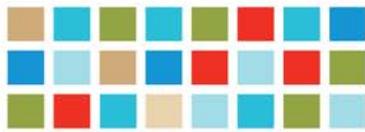
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## INTRODUCTION

This report provides a brief overview of the existing literature and evaluations of student nutrition programs (SNPs). Evaluations conducted on established SNPs in Ontario are outlined, highlighting in particular the outcomes, indicators, methods, and results of the evaluations. A summary of the benefits and challenges associated with offering student-wide nutrition programs, or what is known in the literature as universal programs is also provided. This report constitutes an initial piece of research that is part of a larger program evaluation of SNPs in Guelph-Wellington being conducted by Food and Friends, a program situated within the Children's Foundation of Guelph and Wellington.

### Research Goals

This literature scan aims to summarize the discussion around universal student nutrition programs and highlight key outcomes, indicators, methods employed, and results of other evaluations of student nutrition programs in Ontario through the examination of existing grey and academic literature. This literature scan is being conducted in conjunction with Food and Friends and aims to inform the focus, methods, and measures used in a pilot evaluation of SNPs they support in the Guelph, Wellington and Dufferin area.

## METHODS

### Sources

This literature scan has focused largely on evaluations of SNPs within Ontario conducted by school boards, local researchers, and public health units. These six evaluations were acquired from webpages associated with SNPs and general Google searches. In addition to evaluations, two academic articles analyzing universal student nutrition programs, one book about programs in the United States, and a couple of supplementary papers about the general programs in Ontario were examined. These articles focused on Canadian nutrition programs, but several were based on SNPs in the United States. Many of the evaluations looked at 5 to 10 schools. The exception to this number is the Feeding Our Future evaluation that only examined three schools, but conducted the evaluation for a longer time period (Muthuswamy, 2012).



## FINDINGS

### Overview of Student Nutrition Programs

In Canada, not all school-aged children receive a nutritious breakfast prior to arriving at school. Children may not consume a morning meal due to:

- Morning time constraints,
- Parental work schedule,
- Low appetite in the morning,
- Long travel time to school, or
- Lack of food in the household (de Wit, 2012).

Student nutrition programs provide children and youth with access to snacks and meals through schools or community organizations (de Wit, 2012). In Ontario, nutrition programs are partially funded by the Ministry of Children and Youth services, but Canada does not have a standard student nutrition model (de Wit, 2012). The literature suggests that SNPs benefit students by improving:

- Attendance and behavior,
- Academic performance, and
- Health and nutrition (Lambton Student Nutrition Advisory Committee, 2012).

Despite the benefits of participating in SNPs, participation can be hindered. While not a large cause for concern with younger children, adolescents and families deal with fear of stigmatization and judgment from peers for using SNPs (Poppendieck, 2010). These concerns can cause the programs to alienate children and families living in poverty (Raine, McIntyre, & Dayle, 2003).

### Overview of Universal Student Nutrition Programs

Universal student nutrition programs are designed to reduce stigma and alienation associated with SNPs that are focused on families of need. Universal nutrition programs provide meals to all students and participation is not dependent on a child's or youth's financial status (Muthuswamy, 2012). This type of program is designed to remove



financial and stigmatizing barriers (Muthuswamy, 2012). Many universal nutrition programs operate throughout Ontario and several have been evaluated on their performance and attitudes towards them.

## Review of Evaluation Findings of Universal SNPs

### Outcomes

These evaluations examined the impact of universal student nutrition programs on children and adolescence. The outcomes of some of the evaluations were to gain an understanding of the student nutrition programs' operations and the effects the SNPs have had on the lives of participating children (Taylor & Bobesiu, 2008) or the strengths of the program and areas for improvement (Maan Miedema & Wdowiak, 2013; Muthuswamy, 2012). More extensive evaluations like the Feeding Our Future evaluation – a two-year evaluation of student nutrition programs in Toronto's Jane and Finch neighbourhood - also examined:

- The effects on student health (Muthuswamy, 2012),
- The impact on student attendance, behavior and academic performance (Muthuswamy, 2012),
- The safe handling of food (Lambton Student Nutrition Advisory Committee, 2012),
- Fundraising (Lambton Student Nutrition Advisory Committee, 2012),
- Volunteers (Lambton Student Nutrition Advisory Committee, 2012),
- Development of menus (Lambton Student Nutrition Advisory Committee, 2012), and
- Support from partners (Lambton Student Nutrition Advisory Committee, 2012).

### Indicators

These outcomes were evaluated by looking at relative indicators. Indicators are changes or characteristics that can be used to determine the success of an outcome through observation or measurement (United Way of America, 1996). To understand a student's perception of the program, they were asked questions about:



- The quality and quantity of food provided (Muthuswamy, 2012),
- Their eating habits (Muthuswamy, 2012),
- Experiences they have had with regards to accessing the program (Taylor & Bobesiu, 2008),
- How satisfied they were with the meal program (Muthuswamy, 2012), and
- What they felt needed to be improved (Taylor & Bobesiu, 2008).

In order to understand the operation of student nutrition programs, key contributors to the programs – including program coordinators, teachers, volunteers, nutritionists, and principals – were asked about:

- The benefits that participation has on children, and
- The challenges they have encountered with the operation of the program (Taylor & Bobesiu, 2008).

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**11. What do you see as the greatest resource needs for school nutrition programs?**

- School support
- Students to participate
- Money for staff
- Money for food
- Kitchen facilities
- Volunteers
- Other (please specify)

Figure 1: A question from a survey directed at key contributors (Taylor & Bobesiu, 2008, p. 27).



**8. From your perspective, do students benefit from their participation in the nutrition program?**

Yes

No

If yes, how do they benefit?

Figure 2: A question asking key contributors about the benefits to participants (Taylor & Bobesiu, 2008, p. 26).

Some key contributors were asked to rate how satisfied they were with their program such as their communication with volunteers and coordinators and the use of space in the school (Taylor & Bobesiu, 2008). Additionally, the Feeding Our Future evaluation looked for changes in academic achievements, attendance, and disciplinary actions at the school level to determine alterations in student behaviour (Muthuswamy, 2012).

### Methods

Depending on the outcomes evaluated, different qualitative and quantitative methods were used as well as different participants targeted. Most evaluations used a mixture of qualitative methods such as surveys, interviews, and focus groups. While some measured program attendance, only one evaluation examined test scores. Some evaluations focused on younger children in grades 2 to 4 who had participated in the program for at least a year (Russell, et al., 2007). While other evaluations focused on adolescents in middle schools and secondary schools (Muthuswamy, 2012). A few of them offered adult participants certificates of about \$25 and children educational gifts for participating in the research (Russell, et al., 2007).

For the evaluation of program performances, the researchers:

- Conducted interviews with key contributors to the program such as coordinators, volunteers, school administrators and teachers (Muthuswamy, 2012),
- Conducted online surveys with key contributors such as the coordinators or principals (Lambton Student Nutrition Advisory Committee, 2012; Taylor & Bobesiu, 2008),
- Led focus groups with students (Muthuswamy, 2012),



- Visited the location of student nutrition programs (Muthuswamy, 2012),
- Examined records of participation in the meal programs (Muthuswamy, 2012), and
- Compared student attendance, academic and suspension records from before the implementation of the nutrition program and after (Muthuswamy, 2012).

In order to understand the attitudes and perceptions of students and other relevant stakeholders, different methodologies were employed:

- Hardcopy surveys were sent to all students; these surveys were voluntary and kept confidential (Muthuswamy, 2012),
- Focus groups with children (Maan Miedema & Wdowiak, 2013; Russell, et al., 2007),
- Interviews with children and youth (Taylor & Bobesiu, 2008),
- Interviews with key contributors (Maan Miedema & Wdowiak, 2013),
- Focus groups with key contributors (Russell, et al., 2007),
- Surveys with participating parents (Maan Miedema & Wdowiak, 2013; The Farm to School Steering Committee, 2009; Russell, et al., 2007), and
- Surveys with non-participating parents (Russell, et al., 2007).

## Results

### Reasons for using SNPs

These evaluations revealed the impacts universal student nutrition programs have on youth and children. Some students were unable to participate in the program at their school because they were not able to arrive early enough (Taylor & Bobesiu, 2008). Additionally, students were less likely to participate in morning meals served in the foyer; perceptions of preparation of the food served prevented students from participating (Muthuswamy, 2012). Participation in the programs was found to be attributed to:

- Arriving at school without food such as lunch or a snack,



- Deciding not to eat breakfast before leaving for school,
- A lack of food in the student's household, and
- Time constraints prior to arriving at school (Taylor & Bobesiu, 2008).

### **Stigma persists despite universal approach**

Despite offering nutritious meals to all students, there were still children who did not participate. Older children were concerned with their image and how they would be perceived by others if they participated in the program; this did not appear to be an issue with children under the age of 10 (Russell, et al., 2007). In addition to adolescents, there was a perceived stigma in the larger community; some community members perceive the program as something only for the poor, so they are embarrassed to send their children or are concerned if their children participate that they will be taking away the opportunity for a child in need to engage (Russell, et al., 2007). It is thought that parents may also fear that participation means that they cannot provide for their children and consequently they will be subject to being involved with children services (Russell, et al., 2007). One evaluation was concerned that the parents who did fill out the survey might be more knowledgeable about the program than others (Maan Miedema & Wdowiak, 2013). Some parents worried about the potential for parents to abuse the programs (Russell, et al., 2007).

### **Main benefits to participation**

Based on both key contributors and student evaluations, some of the main benefits to students who regularly (at least 3 times per week) participated universal student nutrition programs were:

- Decrease in student behavioral issues, tardiness, absence, and disciplinary incidences (Muthuswamy, 2012),
- Increase in a student's ability to focus (Muthuswamy, 2012),
- Increase in alertness (Taylor & Bobesiu, 2008),
- Improved learning skills and performance in science and reading (Muthuswamy, 2012),
- Increase in class participation (Taylor & Bobesiu, 2008),



- Improvement in the overall well-being of the student (Muthuswamy, 2012),
- Opportunity to socialize and develop relationships (Russell, et al., 2007; Taylor & Bobesiu, 2008), and
- Increase in the probability of graduating (Muthuswamy, 2012),

### **Challenges with program operation**

Programs faced challenges with recruiting volunteers and access to resources for the operation of the SNP (Taylor & Bobesiu, 2008). Other programs found that there are insufficient funds to improve the programs (Muthuswamy, 2012). Some programs have had to shut down due to:

- Difficulty recruiting volunteers,
- Insufficient funding,
- Difficulty adhering to nutrition guidelines, and
- Problems with the reporting process (Pike, Mayo, & Jaffray, 2010).

The Feeding Our Future evaluation in Toronto was quite extensive, but they found there was more research required into the long term effects of nutrition programs on students who are already considered to be at risk (Muthuswamy, 2012). Students who engaged with the SNP at least three times per week had low academic achievements compared to those who ate twice a week or less (14% and 34% respectively) (Muthuswamy, 2012). Their evaluation found no differences in mathematic test scores with grade 9 applied students who frequently participated in the program and students who rarely participated or did not at all participate (Muthuswamy, 2012).

## **CONCLUSIONS**

This literature review provides an overview of some of the aspects of universal student nutrition programs that have been evaluated in Ontario in order to assist in the development of an evaluation for the Food and Friends Student Nutrition Programs in Guelph-Wellington-Dufferin. While many of the evaluations mainly examined the perceptions and the general operation of programs, the perceived benefits and challenges of universal programming have also been investigated. A variety of methods were used to evaluate the success of programs depending on whether the evaluations



were examining the operation of the program or impact on students. The Feeding Our Future evaluation is the only evaluation reviewed which attempted to quantify academic and health benefits to children participating in the program.



## REFERENCES

- de Wit, Y. (2012). *Nourishing Young Minds*. Toronto: Toronto Public Health.
- Lambton Student Nutrition Advisory Committee. (2012). *Lambton Student Nutrition Program Evaluation Report*. County of Lambton: Lambton Student Nutrition Advisory Committee.
- Maan Miedema, J., & Wdowiak, H. (2013). *Implementation of the Waterloo Catholic District School Board Elementary Food and Nutrition Policy: An Evaluation*. Waterloo: Region of Waterloo Public Health.
- Muthuswamy, E. (2012). *Feeding Our Future: The First - and Second - Year Evaluation*. Toronto: Toronto District School Board.
- Pike, D., Mayo, S., & Jaffray, D. (2010). *More than Snacks*. Hamilton: The Social Planning and Research Council of Hamilton.
- Poppendieck, J. (2010). *Free for All: Fixing School Food in America*. Berkeley: University of California Press.
- Raine, K., McIntyre, L., & Dayle, J. B. (2003). The failure of charitable school- and community-based nutrition programmes to feed hungry children. *Critical Public Health* , 13 (2), 155-169.
- Russell, J. A., Dwyer, J. J., Macaskill, L., Evers, S., Uetrecht, C., & Dombrow, C. (2007). Perceptions of Child Nutrition Programs: The Voices of Children, Parents, Volunteers, Program Coordinators and Educators. *Journal of Hunger & Environmental Nutrition* , 2 (4), 47-65.
- Taylor, A., & Bobesiu, A. (2008). *An Evaluation of Student Nutrition Programs in Halton, Peel, and Waterloo Regions*. Kitchener: Centre for Community Based Research.
- The Farm to School Steering Committee. (2009). *Farm to School Pilot Program Evaluation Report*. Halton: The Farm to School Steering Committee.
- United Way of America. (1996). *Measuring Program Outcomes: A Practical Approach*. Alexandria: United Way of America.



## APPENDIX: ADDITIONAL RESOURCES

Some evaluations included their surveys in the appendix of their reports:

- [An Evaluation of Student Nutrition Programs in Halton, Peel, and Waterloo Regions](#) prepared by the Centre for Community Based Research
- [Farm to School Pilot Program Evaluation Report](#) prepared by The Farm to School Steering Committee
- [Lambton Student Nutrition Program Evaluation Report](#) prepared by Student Nutrition Advisory Committee