

The Case for Carrots:

A Healthy School Food Public-Private Partnership





“When working with school food, we need to carry our moral compass. Feeding kids should be a responsibility, not a second income stream. All companies should be serving fresh fruit and vegetables, including with pizza lunches, if they want to work in the school environment.”

Ruthie Burd, Founder of the Lunch Lady

Nourishing School Communities is a collaborative, evidence based initiative that aims to get more healthy and local foods into the minds and onto the plates of school children across Canada. The initiative is funded by the federal government through the Canadian Partnership Against Cancer’s Coalitions Linking Action & Science for Prevention (CLASP) program. Thanks and appreciation are extended to all those involved in the design, implementation, and evaluation of the Nourishing School Communities initiative.



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EXECUTIVE SUMMARY

This case study explores the first two years of a public-private partnership between Nourishing School Communities (NSC) initiative and the private school food provider ‘the Lunch Lady.’ The partnership began in 2013 and it allowed for the formulation of ‘Smarter Meals,’ a healthier menu now offered to school children by the Lunch Lady. Smarter Meals follow superior nutritional criteria than that of current school nutritional guidelines, in order to offer meals as nutritious as possible for children. The new menu has been found to be well received by parents and children alike, and positively influenced important operational changes within the company. The partnership has also been found to have positive outcomes beyond the company, such as influencing some changes in food suppliers’ operations and market options. Despite the partnership’s positive outcomes, challenges exist in transforming the school food landscape towards a healthy one, such as the lack of regulatory oversight of nutritional policies, the school fundraising cultures and the deception of online food ordering systems. Recommendations are made as to the role different stakeholders can play in influencing and supporting efforts to introduce healthy school food environments across Canada.



INTRODUCTION

Nourishing School Communities (NSC) is a collaborative and evidence-based initiative whose vision is to have healthy, local and sustainable food environments for all school children across Canada. To achieve this, NSC collaborates with diverse partners across the country. One of these partners has been the Lunch Lady, Canada's largest privately-owned school food provider. Founded in 1993 by Ruthie Burd, the Lunch Lady caters hot and cold lunches to schools, and now serves thousands of children every day in four provinces through 35 kitchens.

The Lunch Lady's perspective on school food is that health and taste can go hand in hand. The company designs its meals to appeal to elementary school children while still ensuring that these meet all the different provincial, school board and/or school nutritional policies, standards, and guidelines where the company operates. The company's established presence in the school food service industry and positive philosophy towards school food enabled the NSC team to approach the Lunch Lady in 2013 and propose a partnership to help the company improve its menu options to offer healthier meals to school children. The partnership was formalized in October of that same year.

The following case study explores the first two years of this collaborative experience. It describes the processes and outcomes of working together to develop a new and healthier school food menu option called 'Smarter Meals.' It highlights the challenges to offering healthy school food options in Canada, and provides recommendations on how stakeholders in the area of school food can influence and support healthy school food environments across the country.

BACKGROUND

When establishing the vision and direction of the NSC initiative, the partners recognized that private food service companies play an important role in influencing school food environments. These companies are in a unique position to affect change because they have existing infrastructure, functioning business models and established relationships with food suppliers (Institute of Medicine, 2012). Involving private partners has therefore been instrumental, since shifting eating patterns in a meaningful way can only be achieved through the participation and collaboration of all influencers; private companies are increasingly part of this group (Institute of Medicine, 2012).

"We were approached by the Heart and Stroke Foundation of Canada to sign onto this initiative. There was a lot of enthusiasm on our part to join with an organization that had a non-business point of view that shared our values. I think that whenever you're in business, no matter what motivates you, your motives are always suspect. Of course everyone wants to profit from what they do, but in most small businesses, what we call profit is in fact what others call "salary" - it is what is left over to take home. Our company has always tried to be corporately conscious and so having the opportunity to work with organizations that are deemed very credible by the general public was just so wonderful."

*Ruthie Burd,
Founder of the Lunch Lady*

Lunch Lady Facts:

- Offers a lunch program that reinforces healthy food messages taught in the classroom
- Parents choose from dozens of seasonal options available online or on paper menus each school day
- No assistance is required from the school
- As most children eat in their classrooms, a speedy distribution ensures lunch is delivered within minutes of the bell
- Meals are individually packaged and labeled
- Company contributes a portion of each sale to the school

SMARTER MEALS MENU

DEVELOPING THE SMARTER MEALS

The partnership between NSC and the Lunch Lady allowed for the formulation of Smarter Meals, a new more nutritious menu option now offered by the company. In February 2014, the Heart and Stroke Foundation worked with the Lunch Lady to determine the Smarter Meals nutritional criteria. Nutrition standards pre-established by the Heart and Stroke Foundation were used to devise this criteria. They required, for example, that every serving offer 10g or less of fat, 720mg or less of sodium, and 10g or more of protein (see Appendix 1).

Once the Smarter Meals criteria had been established, lab analyses were conducted to determine food group compositions of different Lunch Lady meals, in order to identify those that could be part of the new menu. Lab analyses were deemed to be the most accurate way to acquire the information necessary to develop baseline nutritional data, something the Lunch Lady had not done previously. Food service providers such as the Lunch Lady rely on food suppliers, distributors and government sites for nutritional information. Food service providers then use this information to calculate the nutritional content of their foods to be shared with their customers. As a result, developing baseline nutritional data is rarely considered a necessity by food service providers.

Ten meals were prepared as per Health Canada's sampling guidelines and sent to Maxxam labs for analysis (Health Canada, 1990). Of the ten meals tested, only two successfully met the Smarter Meals criteria (see Appendix 2). Lab results indicated that at least four meals were well outside the Smarter Meals nutritional guidelines for sodium and fat.

The Lunch Lady responded by making the appropriate changes to existing menu items. For example, the chicken wrap was re-designed by substituting breaded chicken strips for grilled chicken. It was then re-tested and found to successfully meet the Smarter Meals criteria. Similarly, the pancake meal was adjusted to meet the protein requirements: sausage and regular yogurt were replaced with Greek yogurt and fruit. Once finalized, the Smarter Meals menu was launched in September 2014, offering six new and healthier meals to all schools catered by the Lunch Lady (see Appendix 3).

LAUNCH AND PROMOTION

These six new Smarter Meals were first introduced on the Lunch Lady website in 2014 with their nutritional information. The company also offered a 'back to school' special to encourage consumers to purchase from the new menu. The launch of these new meals was further promoted by featuring healthy tips in participating schools' monthly newsletters. These healthy tips were developed in collaboration with NSC and were provided to principals to be included in school newsletters. The launch was also promoted at a Nutrition Resource Centre public health webinar in December 2014, which presented the work accomplished to date by the partnership.

For the menu launch of the following school year (2015-2016), the Lunch Lady worked on developing a new look and feel for the Smarter Meals that included pictures of each menu item. The company continues to promote actively the Smarter Meals menu information and pictures on the Lunch Lady website and via their social media channels.



Table 1: Timeline for the Lunch Lady involvement in the Nourishing School Communities initiative

Date	Activity
2008	Ruthie Burd attends the 2008 Championing Public Health Nutrition Conference in Ottawa where she hears Dr. Mary McKenna speak.
2007-2010	The Lunch Lady makes changes to menu prior to the adoption of new provincial school nutrition policies in Ontario and British Columbia.
Feb 2013	The Lunch Lady is introduced to the Nourishing School Communities initiative.
Oct 2013	The Lunch Lady signs the Nourishing School Communities partnership agreement.
Feb 2014	Smarter Meals criteria are established.
June 2014	10 Lunch Lady menu meals sent to the laboratory for testing.
July 2014	Training of the Lunch Lady's staff; menu design and promotion of Smarter Meals. Lab analyses deemed too expensive to continue, and software analysis is used for nutritional info.
July-Aug 2014	Key informant interviews I take place.
Sept 2014	6 Smarter Meals launched for the 2014/2015 Lunch Lady menu.
Oct 2014	The Lunch Lady attends Nourishing School Communities meeting.
Dec 2014	Nutrition Resource Centre webinar.
March 2015	The first Lunch Lady parent survey administered; Nourishing School Communities meeting in Vancouver.
Summer 2015	Key informant interviews II; new menu development; new equipment, recipes and training for franchise owners.
Sept 2015	Launch of expanded Smarter Meals to total of 12 meals for the 2015/2016 Lunch Lady menu.
May 2016	The second Lunch Lady parent survey scheduled to be administered.

THE ROLE OF EVALUATION

As part of the overall evaluation of the NSC initiative, an evaluation of the various activities carried out by the Lunch Lady under the partnership was conducted. Led by the Propel Center for Population Health Impact at the University of Waterloo, the evaluation aimed to find out what had been working well, where improvements could be made and the outcomes of the partnership. A mixed methods approach was used to gather varying perspectives of the Lunch Lady's partnership activities. Data collection methods included key informant interviews and a parent survey to be conducted twice over a two year period. The first parent survey

was administered in the spring of 2015, and the second will be administered in May 2016.

The purpose of the parent surveys is to understand parent awareness, attitudes and purchasing behaviour towards their children's lunches, including the new Smarter Meals menu. All parent customers who had ordered meals from the Lunch Lady at least once in the past year (64,032 parents) were emailed and asked to complete the online survey. The e-mail provided a link to this online survey and offered parents the opportunity to enter a draw for a plush Paddington bear upon completion. Descriptive analysis was conducted on survey responses using Statistical Analysis Software.

The key informant interviews were conducted on various stakeholders (e.g. Lunch Lady staff, food suppliers, and franchise owners) in both 2014 and 2015. The purpose of these interviews was to understand the different experiences in providing food for the Smarter Meals menu. Key informants were selected based on geography (e.g.

franchise owners in the four provinces where the Lunch Lady operates) and stakeholder role. The interviews were audio-recorded and transcribed verbatim. The interview guide was used to inform initial codes, and directed content analysis was used to interpret responses (Shannon, 2005).

SURVEY FINDINGS

Overall, 9,408 parents responded to the survey, a participation rate of 15%. Survey participants were primarily from Ontario (82%), female (92%), and had either a college or university degree (82%). Findings from the parent survey also found that:

- 43% of participants ordered from the Smarter Meals menu.
- 76% of parents reported that having meals containing fruits and vegetables was “somewhat important.”
- More than 90% of parents reported that meals containing foods that their child will like and providing nutritious healthy meals were important factors of influence in purchasing a particular meal.
- Parents of younger children were the most frequent buyers of the Lunch Lady, and a declining trend in meal purchasing was identified as students transitioned into higher grades.

When asked questions specific to the Smarter Meals menu, results showed that 77% of respondents were aware that the Lunch Lady had been offering these new meals as part of its current menu. However, only 43% of participants were aware that the Lunch Lady had been working with other agencies to support healthy school food environments. Of those who had ordered from the Smarter Meals menu:

- 75% indicated that their child enjoyed the meal.
- 84% would or have ordered a Smarter Meal again.
- 86% would like to see more Smarter Meals on the menu.

On the other hand, the survey also found that 57% of respondents reported that the Smarter Meals did not influence them to change their regular meal orders. The most common reasons for this were lack of awareness of the Smarter Meals (32%) and beliefs that the meals would not appeal to their child (38%). Additional explanations included cost, child preferences, dietary needs, and that ordering from the Lunch Lady was a “treat” and the child chose his or her meal.



IMPACT OF THE NSC INITIATIVE ON THE LUNCH LADY

Mrs. Burd was inspired to strive for a healthier menu partly after attending Dr. Mary McKenna's presentation at the 2008 Championing Public Health Nutrition Conference. Dr. McKenna is a professor of the Faculty of Kinesiology at the University of New Brunswick and a Registered Dietitian. Her research has found that, on average, food caterers in Canada may or may not be meeting the minimum requirements of provincial school nutrition policies, and do not necessarily embrace the full meaning and importance behind them. Reflecting on Dr. McKenna's presentation, Mrs. Burd points out that "originally the goal post was to ensure we would meet all the [provincial school nutritional] guidelines and the Lunch Lady was proud of that. However, Dr. Mary McKenna moved the goal post further."

Moving to a healthier menu was risky for the Lunch Lady. Franchise owners were worried that sales and operations would be negatively affected by such changes. This apprehension had also been fed by complaints the company received in 2006 and 2007 from parents, council members and school principals, when the company introduced more whole grains in their school food options. Mrs. Burd wanted to take the lead on a healthy menu for the Lunch Lady, but she felt she was sometimes doing it in isolation both within her company and the school catering industry. This sentiment changed in October 2014 when Mrs. Burd attended a NSC meeting in Waterloo, Ontario. It had been the first opportunity for her to meet other key partners of the initiative and to be exposed to a group that shared her goals on healthy school food. "One of the surprising things for me," Mrs. Burd recalls, "was how many players are already involved in trying to help

this cause. It was a big eye opener for me that there are so many projects and people working on this." This particular meeting gave Mrs. Burd practical real-life examples on how others had been promoting healthy and local foods. Rather than feeling isolated, she began feeling part of the knowledge exchange, and left the meeting encouraged and energized.

In May of 2015, the Lunch Lady began to plan the 2015-2016 school year menu. At this time, the findings from the online parent survey were shared with partners. These findings validated the Lunch Lady's direction on healthy food, and gave the company the motivation to strive to include even healthier options on their menus. The Lunch Lady's goals were shifted once more, now seeking to include locally and sustainably grown foods, defining the company's new vision of 'fresh.' The next challenge was to engage internal stakeholders and franchise owners in this new vision.

"The other members of NSC were talking about the importance of 'fresh', healthy regionally sourced and sustainably produced foods. The Lunch Lady did not have a lot of supports for working with farmers so that was a whole different dimension that the Lunch Lady had to think about. I started to think about how this might be scalable for the Lunch Lady."

*Ruthie Burd,
Founder of the Lunch Lady*

THE CASE FOR COOKING MEALS FROM SCRATCH

Armed with new knowledge and inspiration, the Lunch Lady began to consider how many more existing food options could meet the Smarter Meals criteria. They began to evaluate ingredients and food items to identify those that failed to meet the requirements. They found that a few sauces and dressings commonly used in recipes were high in fat and/or sodium. After exploring alternative market options, the



Lady decided to make their own sauces. This was an important change since it impacted menu items beyond the Smarter Meals: these sauces are the base ingredients for a variety of Lunch Lady menu options (Figure 1).

Figure 1: Nutrition Impact of Moving to Scratch Cooking

Tomato [Pasta] Sauce per ½ cup			
	2014	2015 (FROM SCRATCH)	% DIFFERENCE
CALORIES	90	44	51% lower
TOTAL FAT (G)	3	0.2	93% lower
PROTEIN (G)	2	1	50% lower
SODIUM (MG)	480	167	65% lower
Ranch Dressing per 15mL - 1 tbsp.			
	2014	2015 (FROM SCRATCH)	% DIFFERENCE
CALORIES	90	27	82% lower
TOTAL FAT (G)	10	1	90% lower
PROTEIN (G)	0.1	1.3	92% higher
SODIUM (MG)	150	83	55% lower

Making menu items from scratch has had a positive and significant impact on the Lunch Lady: it has been transforming the way the company prepares all of its meals. The decision to make homemade sauces influenced the Lunch Lady to begin making other menu items homemade whenever possible. For example, they began making new homemade smoothies and dips with greater protein content, which were also launched in the 2015-2016 Smarter Meals menu.

STAFF AND FRANCHISE OWNERS

Since staff and franchise owners were wary of the impact important menu changes could have on the company, Mrs. Burd ensured that they were engaged throughout the entire process. Her approach has led staff and franchise owners to now embrace the company's vision of fresh and healthy school food. "Franchise owners asked for scratch items at our annual conference last year," says Mrs. Burd, "because they are in it for the health of kids, and the food tastes way better." For additional support, a full time Nutrition and Operations Coordinator has been hired. Bringing their expertise in nutrition and running scratch cooking food service to the company, the coordinator continuously seeks to find new and better ways franchise owners can introduce foods that are as fresh and local as possible.

"Within our organization, it's important for our franchise partners to understand what we're doing and why it matters. Change can be so uncomfortable and understandably it can be a challenge to embrace and appreciate these policies when they are worrying about their bottom line. The business still has to be viable. However, we are committed to our goal and working with them to be part of this journey."

*Ruthie Burd,
Founder of the Lunch Lady*

BUDGETS & OPERATIONS

Preparing meals from scratch has required operational changes of the Lunch Lady's kitchens. In the past, buying prepackaged foods was easier for franchise owners and was theoretically supposed to reduce labour costs. However, in reality, lower labour costs never actualized. This was due to the relationship between the fluctuating number of meal orders and stable labour expenses. That is, even when orders were few, kitchen staff labour time and pay did not change, which meant the kitchen was not operating at capacity or efficiently.

Another positive impact of the partnership on the Lunch Lady has been addressing these operational issues. A new organizational system was introduced in all 35 kitchens, which includes new recipe charts, adjustments to ordering procedures and new cooking operations. The outcomes of these changes have been more efficient labour practices and ordering of supplies, and more balanced operational costs. "Now that scratch cooking demands more labour time and is not as closely related to daily orders," points out Mrs. Burd, "everyone is generally busier." In addition, the company has been able to deliver the new program at a cost close to the old one, a happy surprise.

Even though the 2015 financial statements of the Lunch Lady franchises indicated that labour expenses increased as a result of these operational changes, they equally indicated that procurement expenses decreased, ultimately balancing the books. It also indicated that prepackaged foods are

relatively expensive compared to raw ingredients, even after accounting for the 72% increase in fruit and vegetable expenses. Ultimately, the Lunch Lady has found that labour expenses are not greater than the savings on food procurement.

As for overall sales, these increased moderately between 2013-2014 and 2014-2015 fiscal years. Smarter Meals went from no sales in 2014 to accounting for 8% of all sales in 2015. Some food options available in 2014 were reformulated in 2015 to meet the Smarter Meals criteria, and some of these items saw increases in sales. For example, sales of the Pasta Parmesan increased by 4% and those for the Perogies meal increased by 16%. On the other hand, some food items did experience a decline in popularity. Namely, sales of the Pancake meal fell by 27% after changes were made. Yet, despite declines, total sales in 2015 increased while the number of franchises and participating schools remained constant.

FOOD SUPPLIERS AND NUTRITIONAL INFORMATION

During lab analyses to identify foods that met the Smarter Meals criteria, discrepancies were uncovered between the nutritional information provided by food suppliers and test results. For example, lab nutritional data of the Chicken Finger meal differed significantly from the nutritional information of food items provided by suppliers, even after accounting for cooking losses (Table 2). Such important differences suggested that the 2014 supplier nutrition information was inaccurate and raised questions about the software analysis processes used by suppliers. Recognizing that the company was liable for providing accurate and quality nutrition to children, the Lunch Lady had to re-evaluate the trust it had placed in its suppliers' nutritional information. As a result, a supplier product quality tracking system has been developed.

Inaccurate supplier data were not new to the Heart and Stroke Foundation nutrition staff that had previous

experience working with the food service industry. Food service nutritional information is not legislated the same way as consumer packaged goods; there is no regulatory oversight. In addition, acquiring and providing nutritional information is still new to food suppliers and caterers, and there is widespread confusion in the food service industry around how to do so. Obtaining competences on how to accurately calculate nutritional information requires training, adequate tools and a tracking system, time and resources some food providers don't have access to. This leads to most food service providers to simply add up the nutritional information for recipe ingredients, and nutrient composition changes from cooking are not necessarily accounted for. This gap is currently being addressed in British Columbia by the BC Ministry of Health, through their *Healthy Families BC Informed Dining Program*.

THE RELATIONSHIP BETWEEN THE LUNCH LADY AND FOOD SUPPLIERS

What is unique about the Lunch Lady is how closely the company works with its food suppliers to ensure the highest quality of food. Even though the Chicken Finger meal did not initially meet the Smarter Meals criteria, the Lunch Lady approached the supplier for adjustments using the healthier specifications (Table 2). After many trials and taste tests, a new suitable product was developed. The Lunch Lady began to request lab analyses for all suppliers' products so that, going forward, accurate nutritional information could be provided for all Lunch Lady meals.

Table 2: Nutrition Information for Breaded Chicken with Rice and Corn

Per serving	Values reported by supplier (2014)	Values found by Lab Analysis (2014)	% Difference (compared to values reported by supplier)	Values found by Lab analysis with revised chicken (2015)
Weight/ serving (g)	375 g	315 g	16% lower than reported	341 g
Calories	489	500	Not Applicable	419
Fat (g)	6.5	17	Fat 162% higher than reported	10
Protein (g)	18.5	13	Protein 42% less than reported	16
Sodium (mg)	402	680	Sodium 69% more than reported	387

Working closely with food suppliers has had some direct benefits for both the Lunch Lady and the food suppliers themselves. For example, one food supplier developed products that would meet the Lunch Lady's needs for Ontario's school nutritional standards, and then used those products as the basis for a new line they began selling in larger markets. The Lunch Lady also helped food supplier staff interpret a recent food policy document that they felt was "a little bit overwhelming." The supplier explained that "it was great to be able to say, okay, what this means [...] and have the Lunch Lady go through it with our dietitians and our product developers." Another food supplier learned early on how to provide the Lunch Lady with healthier options. It gave them some experience in making healthier products before the Ontario government mandated a school nutrition policy, giving them a competitive edge. As they state, "we probably eventually would have gotten into providing those sorts of products."

Suppliers have also contributed to the formulation of some of the Lunch Lady's menu options. That is, the Lunch Lady provides meal criteria and the supplier offers meal options supported by the ingredients they supply. This type of exchange takes place on an annual basis and offers creative ways to increase the nutritional value of meals. For example, a supplier has showcased the preparation for a healthier and non-breaded chicken option that could be used in meals such as a chicken parmesan loaded with vegetables.

What has been notable about the responsiveness of food suppliers to the Lunch Lady's requests is that none of those interviewed mentioned the company as a large customer. Even though the Lunch Lady is the largest national school food provider, from a supplier's standpoint, they are a small player in the broader landscape of the food service industry. The fact that they are willing to respond to the Lunch Lady's purchasing requests speaks to the impact small or medium size food service providers can have in changing food service environments when they are willing to take the lead in sourcing and purchasing healthier foods.

CHALLENGES TO OFFERING HEALTHY SCHOOL FOOD

From 2005 to 2012, most provinces across Canada adopted a school food and nutrition policy, standard or guideline, and school food providers have been expected to respond accordingly. For a franchise operation like the Lunch Lady that serves schools in four provinces, the standards have been a challenge since each province had their unique school nutrition policy or guideline. Working towards a healthier school food landscape has been even more challenging when some school food providers make an effort to meet the provincial guidelines and others do not. Unfortunately, without provincial or federal oversight, the guidelines are not necessarily fully implemented (Taylor, McKenna, & Butler, 2010).

Some provincial and territorial governments are making efforts, however, to revise the current school nutrition policies, standards and guidelines. To encourage and support this process, a pan-Canadian working group published in 2013 a guide for nutritional criteria in schools (Federal, Provincial and Territorial Group on Nutrition Working Group on Improving the Consistency of School Food and Beverage Criteria, 2013). The uptake of this guide to date has been unclear. Evaluating the implementation of provincial guidelines on school meals could provide valuable data that can help further improve food quality, distribution and nutritional value, and some research has begun exploring this in Alberta, British Columbia, Manitoba, Ontario, Nova Scotia, and Prince Edward Island (Taylor, et al., 2010).

Another challenge has been the schools' fundraising cultures. It is common for schools bringing in lunches or snacks from external food service providers to expect a donation to be made towards the school. Schools and parents often choose food service providers based on fundraising potential, especially for celebration days or days specifically devoted to fundraising. However, the Lunch Lady

doesn't always have the ability to meet the same level of donation as do other larger and longer-running food service providers that cater to customers other than schools, such as popular pizza or bakery chains. As a result, the Lunch Lady becomes less attractive from a fundraising standpoint. For example, at the Norseman Junior Middle School in Toronto, the Lunch Lady's contributions were 4% of the annual fundraising budget, while pizza days and cookie days were 26% and 5% respectively (Norseman Junior Middle School, 2015). At times, the foods ordered for school fundraising and celebration days fall into the 'sell less' category of healthy nutritional guidelines. With birthdays, themed weeks, school events and fundraisers, these days can become much more frequent than anticipated, undermining efforts for healthy school food environments.

A further challenge identified in the stakeholder interviews has been the evolution of online school food ordering systems, which are now being introduced across the country. These online platforms allow schools to set up a webpage where food providers can showcase meal options and fundraising program choices. They are efficient systems since they do not require volunteers, teachers or staff to

"It seems to me that guidelines aren't enough to enforce [a] policy. There are a lot of dynamics at play in the school food environment. Some principals are really committed. Other principals don't want to tell the parents how to feed their kids. As well there are financial considerations that can determine what food is offered for fundraisers. The guidelines aren't perfect, but they're setting a standard that wasn't in place before. Unfortunately, there are still many schools that ignore the guidelines because no one is enforcing these rules."

Ruthie Burd,

Founder of the Lunch Lady



handle money or forms. However, they can be deceiving from a healthy food point of view. These online ordering systems may or may not make nutritional information available, and may or may not review food options to make sure they adhere to provincial nutritional policies. In addition, school food online ordering displays can make all items look equally healthy, but don't actually allow for nutritional comparisons. As such, these sites may be clouding the healthy school food landscape since food options are selected primarily for convenience or fundraising potential by schools and parents.

CONCLUSION

This case study is a snapshot of the Lunch Lady's journey working with the NSC initiative to improve school food landscapes. The Lunch Lady's journey has not yet ended, and the next step will be for the company to share their story. Given the growing interest in school food from researchers, policy makers, private enterprises and public health practitioners, there is a need to engage the education community in the process of introducing healthy school food environments across Canada. It is important to regularly share learnings and impacts of school food initiatives, such as the Lunch Lady's, with all levels of the education community (Champlain Cardiovascular Disease Prevention Network et al., 2015). Marketing the menu changes and the reasons behind these changes will help parents, school administrators and community partners to understand the Lunch Lady's philosophy on healthy school food, a unique element that sets the company apart from competitors. In addition, establishing regular communication with school leaders, school boards and education ministries should be part of the agenda, in order to foster greater awareness, acceptance and action.

Unfortunately, measuring the long term impact of the Smarter Meals on the health of school children and their risk factors for chronic diseases is beyond the scope of the NSC initiative. However, the body of research indicating that balanced meals with fresh fruits and vegetables positively influences the health and academic performance of children supports the Lunch Lady's efforts to offer healthier food options to children (Story, Nannery & Schwartz, 2009).

As for whether the Lunch Lady's experience is transferable to other food service providers, the answer is yes. Changing the menu to offer healthier meals to school children has been a positive experience for the Lunch Lady and its franchise owners, because consumers are looking for healthier food options when eating out, as long as taste and convenience do not suffer (International Markets Bureau, 2010). The Lunch Lady parent survey results further supports this, and the company's financial statements indicate that changes to healthier meals can be profitable. Overall, the Lunch Lady's sales have been promising, costs have remained stable and operations have become more efficient.

Finally, there continues to be the potential for further collaboration between NSC partners. If resources and budgets allow, the Lunch Lady and Farm to Cafeteria Canada see possibilities for future collaboration to develop opportunities for local and regional franchise staff to visit partners of local Farm to Cafeteria initiatives and exchange new practices and ideas. Having a group of like-minded community supporters who have no financial interest in the matter is important, as it provides different perspectives, a wealth of ideas from the field of school food, and moral support for businesses like the Lunch Lady that want to be part of healthy school food initiatives. Perspectives, knowledge and expertise on school food can be found in both the private and public sector, and forming a panel of experts on nutrition and/or school food issues is a good way to make initial linkages. School food environments are complex and engage diverse stakeholders and influencers from region to region. It is only by working together that positive change on school food environments can be achieved that will serve the interest of both public and private enterprises.

RECOMMENDATIONS

School Food Service Providers and Food Suppliers

1. Abide by provincial, school board and/or school nutritional policies or guidelines and serve appropriate portion sizes.
2. Build competences in the area of accurate nutritional data analysis. This area should be a priority for school food service providers and suppliers who do not use lab analyses. Introducing a nutritional information tracking system that manages all ingredients would support this.
3. Encourage public-private partnerships with public health and/or non-profit organizations with a focus on healthy food to participate in healthy school food initiatives and contribute to efforts for a national healthy school food landscape.

Health Professionals and Health Promotion Practitioners

Build competences on how to accurately calculate nutritional information through training, as well as support and

1. encourage school food service providers in this area.
2. Form linkages to help connect school food service providers with other areas of school food, such as health education and related subjects, extra-curricular school food activities, school gardens, and student cooking programs.

Researchers

Evaluate the impact of provincial policies or guidelines on school meal quality to allow for better nutritional quality and oversight, and to highlight what is working well.

1. Research the policy process to identify effective strategies for policy implementation, monitoring, and accountability.
2. Provide topical research summaries to school leaders, school boards and education ministries, including case studies,
3. in order to foster greater awareness, acceptance and action.

Provincial/Territorial Governments and School Boards

Evaluate the impact of provincial policies or guidelines on school meal quality to allow for better nutritional quality and oversight, and to highlight what is working well.

1. Implement a national or regional school food auditing or assessment program that would promote adherence to nutritional policies and guidelines.
2. Review the pan-Canadian standards published in 2013 to help address the concerns of companies who work inter-provincially.
3. Introduce a national school food policy with appropriate serving size scales that would allow suppliers and food providers to be more successful
- 4.

Parents, Guardians and Teachers

Encourage and support schools in implementing nutrition policies and nutrition-related education for children and youth.

1. Encourage parents to form school food committees to support healthy school food environments and take action by choosing healthy foods or school food caterers that adhere to school nutrition guidelines.
- 2.

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APPENDIX 1: SMARTER MEALS CRITERIA

Table 3: Nutrition Criteria for Children's Entrées

Children's Entrées

Must include two or more food groups including 55 g of vegetables and/or fruit (other than potatoes)

Menu items must fit the criteria per 250 g serving and per menu serving

Fat: 10 g or less

Protein: 10 g or more

Sodium: 720 mg or less

Trans fat: 5% or less of total fat



Definition of a Smarter Meal

If the item is called a “pre-packaged meal” on the menu it needs to meet the Canadian Food Inspection Agency's definition as follows :

A meal should include selections from at least two food groups as designated in Eating Well with Canada's Food Guide. It must consist of at least one serving of: meat, fish, poultry, legumes, nuts, seeds, eggs, or milk or milk products other than butter, cream, sour cream, ice cream, ice milk and sherbet; and vegetables, fruit or grain products.

APPENDIX 2: RESULTS OF LAB TESTS USING SMARTER MEALS CRITERIA

Meals Tested May 2014	Result	Final Meals Launched Sept 2014
Chicken Finger Dinner: breaded chicken strips, corn, whole grain rice, baby carrots, plum sauce	Did not meet criteria for fat	
Pancake Meal: Pancakes, turkey sausage, syrup, yogurt tube, blueberries	Did not meet criteria for sodium	Pancakes, Greek yogurt, blueberries, syrup
Spaghetti and Meatballs: ww* spaghetti, meatballs, pasta sauce, baby carrots	Did not meet criteria for sodium	
Beef Hamburger: patty, ww bun, ketchup, mixed veggie pack	Did not meet criteria for fat and sodium	
Crispy Chicken Burger: breaded chicken patty, ww bun, ketchup, mixed veggie pack	Did not meet criteria for fat and sodium	
Pierogis, steamed fusion veg mix, sour cream, unsweetened apple sauce, Becel margarine	Fit as is	Pierogis, steamed edamame, bean and corn mix, sour cream, unsweetened apple sauce, Becel margarine
Sweet Plum Chicken Wrap: breaded chicken strips, wrap, lettuce, Plum Sauce, Berry	Did not meet criteria for fat	Chicken breast, plum sauce, lettuce in a wrap, with chopped veggies and dip
Fundraiser Hot Dog Combo: turkey dog, ww bun, fat free Greek yogurt, ketchup, sliced cucumbers	Fits if ketchup removed	Fundraiser Hot Dog Combo: turkey dog, ww bun, fat free Greek yogurt, ketchup, sliced cucumbers
Pizzette Combo: Mozzarella pizzette, mixed veg pack	Did not meet criteria for fat and sodium	Chicken Teriyaki: ww noodles, grilled chicken, broccoli, carrots, cauliflower, teriyaki sauce and sliced oranges
Pasta Parmigiana: Penne pasta, Parmesan cheese, Becel, peas and carrots, apple slices	Fits as is	Pasta Parmigiana: Penne pasta, Parmesan cheese, Becel, edamame, bean and corn mix, apple slices

*ww = whole wheat

APPENDIX 3: SMARTER MEALS MENU INTRODUCED IN SEPTEMBER 2014

Smarter Meals 2014	Calories	Sodium	Fat	Protein
3 Whole Grain Pancakes, side syrup and Greek Yogurt and Berries	450 Cal	710mg	4g	13g
Potato and Cheese Perogies with Power Veggie Mix, side sour cream and unsweetened Apple Sauce	360 Cal	500mg	4g	11g
Sweet Plum Grilled Chicken Wrap and a Berry Cup	360 Cal	520mg	7g	23g
Teriyaki Chicken Rice Bowl, Steamed Veggies and Fresh Orange Slices	460 Cal	520mg	4g	20g
Simply Pasta with Parmesan, Power Veggie Mix and Fresh Apple Slices	300 Cal	160mg	4g	11g
Premium Turkey Hot Dog, Whole Wheat Bun, Sliced Cucumbers, and Greek Yogurt	350 Cal	685mg	10g	22g



