

Public Health Nutrition Framework for Action 2012-2016: “A Zero-Waste and Healthy Lunch Box and Snack...A Winning Combo” Project Case Study

Project Name:	A Zero-Waste and Healthy Lunch Box and Snack...A Winning Combo!
Public Health Organization/ Zone: <i>(Vitalite, Horizon, OCMOH)</i>	Vitalité Health Network
Partner Organizations:	Northwest Regional Service Commission (NWRSC); District scolaire francophone du Nord-Ouest (DSFNO); New Brunswick Environmental Trust Fund; Department of Healthy and Inclusive Communities; Université de Moncton, Edmundston campus (UMCE)
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Priority area for action:	<input type="checkbox"/> Food Security <input type="checkbox"/> Healthy Environments <input type="checkbox"/> Prenatal and early childhood <input type="checkbox"/> Breastfeeding <input checked="" type="checkbox"/> School-aged children and youth
Scope: <i>(e.g. province-wide, health network, zone, school district)</i>	Phase I and Phase II of the project: DSFNO Phase III of the project: At a provincial and even an international scale (toolkit online)
Target audience <i>(e.g. general population, local community, low-income group, 3rd graders)</i>	Phase I: Kindergarten children and their parents Phase II: Elementary schools Phase III: School community and general public
Dates	<i>Initiated:</i> June 2012 <i>Completed:</i> March 2015 <i>Case study submitted:</i> June 2015
Level of completeness	<input type="checkbox"/> Planning stage <input type="checkbox"/> Ongoing <input checked="" type="checkbox"/> Terminated

Goals and Objectives:

The goal of this educational project was to encourage students, their parents, the school staff, and the entire community to make healthy and ecological choices every day while saving money.

The aim of the project was two-fold:

- Reduce the amount of waste in schools and at home;
- See healthier snacks and lunches in lunch boxes.

Underlying problem and evidence:

What was the motivation behind this initiative? What evidence was used to inform this initiative? If applicable, provide links to relevant literature, documents, and other resources used to inform this initiative.

When the environmental extension officer from the NWRSC was holding classroom educational sessions, a number of teachers told her that they would have like their students to also receive information on healthy eating. Meals served in the school cafeterias of the district are relatively healthy but it is quite different for a number of lunch boxes that children bring from home. A vast majority of meals brought from home (lunch boxes) do not meet recommendations for healthy eating, such as including a food from each of the four groups in Canada's Food Guide. Also, snacks brought by children are often high in fat, sugar and/or salt and low in nutrients.

Description of the initiative:

What was your initiative? Who was involved? What was public health's involvement or role? Report on your unique context.

The project in question was initiated by the NWRSC, formerly known as COGERNO. To bring this project to fruition, financial assistance was obtained from the province through the New Brunswick Environmental Trust Fund and the Department of Healthy and Inclusive Communities. Then, partnerships were formed with Vitalité Health Network Public Health, Zone 4 and the DSFNO.

The awareness and education project "A Zero-Waste and Healthy Lunch Box and Snack...A Winning Combo!" consists of two parallel components: one specially for kindergarten children and their parents and the other for elementary school students.

Kindergarten – parents

In this part of the project, an environmental extension officer from the NWRSC and Public Health dietitians visit schools to meet with kindergarten children and their parents. Old and young alike learn how to prepare green, healthy, and economical lunch boxes and snacks.

The NWRSC representative explains how the mere fact of using reusable containers can be beneficial for our planet. She also suggests ways to avoid wasting food. As for dietitians, they provide tips on how to prepare delicious and healthy lunches. They also give advice on how to avoid germs.

Professionals also show that by making better choices when preparing lunch boxes and snacks to go, parents can **save over \$800 per child** during the school year.

Each child received reusable containers and a reusable bottle as well as a fridge magnet.

This special component of the project has been in place for three years, i.e. from 2012 to 2014.

Elementary schools

In this part of the project, groups of student leaders were trained in elementary schools in the Northwest. They were visited by the NWRSC facilitator and a Public Health dietitian, who gave them practically the same message as for kindergarten children and their parents. Except that this time, they gave them an **assignment**: share their new knowledge with their peers.

The groups of young leaders were invited to use a **giant retractable banner** to help them in their education initiative. Each school participating in the project "A Zero-Waste and Healthy Lunch Box and Snack...A Winning Combo!" received this promotion tool in the fall of 2013.

Online educational toolkit

An electronic educational toolkit was developed to offer elementary school teachers educational and interactive resources. Its content covers several specific curriculum outcomes (SCO) of programs of studies (sciences and personal and social training) established by the New Brunswick Department of Education and Early Childhood Development. The toolkit, which includes various interactive activities and videos, can be used by teachers in their classroom, as well as by parents and students.

Description of the initiative:	
<i>What was your initiative? Who was involved? What was public health's involvement or role? Report on your unique context.</i>	
Describe the extent to which your intervention integrated the strategic directions identified in the New Brunswick Public Health Nutrition Framework for Action 2012-2016	
Capacity-building	<ul style="list-style-type: none"> • Training sessions for kindergarten children and their parents • Training sessions for student leaders: "Training the Trainer"
Partnerships and collaboration	<p>At the start of the project, the NWRSC partnered with the DSFNO. Then, they decided to call on Public Health dietitians to combine the health and ecological components.</p> <p>Thanks to the New Brunswick Environmental Trust Fund, phases I and II were conducted. With the collaboration of the UMCE and the Department of Healthy and Inclusive Communities, the online educational toolkit (phase III) was developed.</p>
Knowledge management and communication	<p>Many pieces of writing were published about this project, including an article in the Link and another in the MACS and in "Le Nord Ouest" newspaper (see Appendix A). Also, a toolkit promotional insert was placed in an activity booklet for all francophone schools in New Brunswick as part of Provincial French Pride Week (published by L'Acadie Nouvelle in collaboration with the New Brunswick Department of Education).</p>
Comprehensive approach	<p>A Parapost retractable banner was offered to all elementary schools in the Northwest. Groups of student leaders trained then shared their new knowledge with their peers. The electronic toolkit was presented to elementary school teachers and cultural agents of the DSFNO in order for them to become familiar with this resource and use it in the classroom.</p>
Surveillance, monitoring, evaluation	<p>An assessment form was given to some kindergarten teachers to evaluate the impact of interventions. Also, all DSFNO teachers were invited to submit their comments or questions.</p>
Outputs:	
<i>Please share links to any resources, reports, or other materials emanating from this initiative. Please indicate if you have already shared this initiative with others or provide links to any presentation, articles, or other materials you used to share your work.</i>	
<p>The online educational toolkit is available at: www.ecolosante.com. A partnership was formed with the Acadiepedia platform manager and made it possible to put the toolkit online.</p> <p>For all the details on the initiative "A Zero-Waste and Healthy Lunch Box and Snack...A Winning Combo!", visit www.csrno.ca/en/ under <i>Solid Waste, Schools, Eco-Healthy Lunch Box</i>.</p>	

Resources required:

Describe the resources that were required (human and capital) and who provided them.

Human resources:

- Environmental extension officer from the NWRSC
- Public Health dietitians
- Subject coordinator from the DSFNO
- Public Health nurse with the Healthy Learners Program
- DSFNO and UMCE teachers and students
- Community school coordinators of the DSFNO

Financial resources:

- New Brunswick Environmental Trust Fund: \$8,000 (2012)
- Department of Healthy and Inclusive Communities: \$3,000 (2014)
- Regional Public Health office, Zone 4: \$600 (magnets) and \$75 (English posters)
- NWRSC: \$15,000 (eco toolkits, Parapost, posters, advertisement, booklet and magnets)
- DSFNO: \$3,000 (magnets, substitutes, and toolkit)

Total cost of the project: \$30,000

Outcome measures, indicators, and evaluation:

Describe the outcomes of the initiative and the results of any evaluations completed to date. If outcomes or evaluation data are unavailable, describe any plans for evaluation, and outcome and indicators you plan to monitor.

Nutrition component

We compared the results of the surveys completed by teachers whom we visited in the fall of 2014. Our results may however have been biased as our “pre-classroom visit” survey of teachers was conducted after the presentation to parents (before school started). Parents may have made some changes at the beginning of the school year and not have done any more afterwards. We know that it takes some time to get used to changes and that making too many changes at the same time is not effective in the long term.

After analyzing the results, we can say that:

- For most of the components evaluated, results were similar or slightly better following our presentations.
- There were more fruit servings in lunch boxes.
- More students were helping their parents to prepare their lunch boxes after our presentation (autonomy acquired) (36% vs. 61%).

Unfortunately, less students had a serving from each of the four groups in Canada’s Food Guide in their lunch boxes (34% vs. 27%). This is very disappointing as this concept was the basis or key message of our presentations.

However, we know that nutritional changes are often made over a longer period of time and wish that students will find their new knowledge useful in the long term. Research shows that frequent exposure to a healthy eating environment increases chances that a student will adopt healthy eating habits.

Ecological component

As for the ecological component of the project, it is very interesting to see that the amount of waste sent to the sanitary landfill has decreased following classroom presentations. According to the teachers, there is less waste from their students’ lunch boxes in the garbage.

The quantity of individually wrapped products has decreased, which is positive, but on the other hand, the number of reusable containers was lower during the second evaluation. However, the quantity of reusable dishes has increased. Greater awareness was nevertheless observed in students and their parents, which is encouraging. Given that changes take time, more awareness raising is required for people to take action on a daily basis.

During the first evaluation, none of the students were taking their fruit and vegetable leftovers back home to put them in the composting bin. During the second evaluation, 14.3% of respondents reported taking their compostable waste back home in their lunch boxes. Raising their awareness of composting and earthworms paid off!

Lessons learned

What lessons have you learned? What are your impressions of the success or failure of the initiative?

- Collaboration between the various partners was a source of motivation and inspiration to go further with the project.
- A project of this scope requires much time and commitment from each partner. In fact, the richness of the project is attributable in large part to the involvement of the various partners (individual skills gathered in the same project).
- We realized how closely interrelated the health and ecological components are.
- Before undertaking a project, it is essential to talk to people on the field and assess their needs and expectations with them. Consequently, the resources and tools developed will probably be more used and more appreciated. It is also important to adapt the project to the regional context where it will be delivered. As regards the lunch box project, the first step was to meet with kindergarten teachers and identify the needs with them (ecological toolkits, presentations, etc.). Their participation from the outset and throughout the project largely contributed to its success.

Recommendations and next steps:**Recommendations:**

- Participate in change and start preparing a zero-waste and healthy lunch box today!
- If you are interested in undertaking a similar project in your region, feel free to contact us for more details. Also feel free to use the online toolkit in the classroom or at home:
www.ecolosante.com

Next steps:

- Continue promoting the online educational toolkit.
- Develop an English version of the toolkit.