

## **SHIP School Nutrition Initiative**

### **Final evaluation report**

*Prepared for Le Sueur-Waseca Public Health as part of their SHIP grant evaluation*

Le Sueur-Waseca Public Health is working with schools in their service area to improve nutrition among students. The overall objective is to increase access to high quality nutritious foods, by implementing comprehensive nutrition policies including healthy lunch and snacks (which include classroom celebrations, incentives, fundraising, concessions, and vending), school gardens, and Farm-to-School initiatives. The project is part of a larger effort, which is funded by the Minnesota Department of Health's Statewide Health Improvement Program (SHIP).

This report provides a snapshot of the overall impact of the initiative, with emphasis on reporting for the most recent evaluation period (January 2011 through June 2011). It was prepared by Wilder Research. Le Sueur-Waseca Public Health compiled existing data and collected original data as a part of this evaluation, using tools developed by Wilder Research as well as existing assessment tools. This report includes data gathered from:

- Progress reports submitted by each school or district
- School Health Index (SHI) assessment results
- Key informant interviews with school administrators and food service staff
- School Wellness Council follow-up surveys

Schools were able to participate in as many as eight different strategies as part of this initiative. The information in this report summarizes policy, systems, and environment changes at each school or district as a result of participating in this initiative. Although key informant interviews yielded information regarding health behavior data, quantitative measures for behavior change are not available. In the future, the Minnesota Student Survey can be used for this purpose.

### **Reach**

There are a total of 7,956 school-age children who live in Le Sueur and Waseca counties. Le Sueur-Waseca Public Health is working with the eight schools and districts outlined below. At every school and district, 100 percent of the student population was impacted by the activities. This intervention has impacted a total of 4,691 students, which is 59 percent of the total school-age population in Le Sueur and Waseca counties. The following chart identifies the activities of each school or district.

<b>School</b>	<b>School population</b>	<b>Farm-to-School</b>	<b>A la carte and other meal issues</b>	<b>Snacks</b>	<b>School gardens</b>	<b>Celebrations</b>	<b>Concessions</b>	<b>Vending</b>	<b>Fund-raising</b>
Montgomery-Lonsdale Schools	1,278		X	X					
Waterville-Elysian-Morristown Schools	916			X					
New Richland-Hartland-Ellendale-Geneva Schools	761	X	X	X	X	X	X	X	X
Hartley Elementary School	479			X		X			
Waseca Central Intermediate School	442		X	X		X			
Cleveland Schools	416	X			X				
Waseca Junior High School	327				X				
TEAM Academy (Waseca)	72			X					
<b>Totals</b>	<b>4,691</b>								

## Activities

### *Farm-to-School*

School name	School population	Current stage <sup>1</sup>	Sustainability <sup>2</sup>
Cleveland	416	C	A
NRHEG	761	C	A

<sup>1</sup> A) Multiple stakeholders are aware the current system or practice is not working as well as it should, but are not ready to make a change; B) Stakeholders have recognized the need for change but there is no change of practice or new policy added; C) A practice has changed without a formal policy being adopted; D) A practice has changed WITH a formal policy being adopted; E) Policy has changed, but the practice has not changed; F) Does not apply/this is an environmental change

<sup>2</sup> A) Yes, mostly sustainable (sustainability plan in place; even without a plan, it is likely to be sustained); B) Somewhat sustainable -- some work may be sustained, but additional efforts are needed to ensure implementation; C) Unsure if sustainable; D) Probably not sustainable; E) Not sustainable at this time

Farm-to-School programs connect schools with local farms to serve healthy meals, provide agriculture and nutrition educational opportunities, and support local farmers. Two districts participated in Farm-to-School related activities: Cleveland and New Richland-Hartland-Ellendale-Geneva (NRHEG).

- The Cleveland School District posted signs in their cafeteria and on their bulletin board to inform students of the Farm-to-School products on their menu. Local farms also provided produce for Cleveland's taste testing events, including a Mayan Hot Chocolate event in January 2011. Although a formal policy has not been adopted, the district's strong interest in Farm-to-School activities ensures its sustainability.
- To ensure sustainability for the Farm-to-School program at NRHEG, funding is included in their school lunch budget.

School administrators and food service staff from schools participating in Farm-to-School activities were asked about students' perceptions of Farm-to-School products, the benefits of serving local food to students, and changes in students' overall intake of fruits and vegetables. Respondents note that students increased their awareness of where their food comes from as a result of the Farm-to-School program. For older students, the program has prompted more complex conversations about where their food is coming from. As one informant noted:

Farm-to-School helps the students generate conversation at a classroom level to help them understand where food is coming from. My 6<sup>th</sup> graders had conversations about where their food is coming from, local food vs. food being flown in from other countries, which led to a conversation about processed foods, etc.

Respondents also mentioned that student responses to locally grown products have been positive overall and that they have demonstrated a willingness to try fruits and vegetables they may not have previously had exposure to.

#### *A la carte and other meal issues*

<b>School name</b>	<b>School population</b>	<b>Current stage</b>	<b>Sustainability</b>
Montgomery-Lonsdale	1,278	C	A
NRHEG	761	C	A
Waseca Central Intermediate School	442	C	A

A la carte and other meal issues include meal or menu issues that are not Farm-to-School specific. Three schools or districts participated in a la carte-related activities.

- Montgomery-Lonsdale schools added additional whole wheat products, 1% milk, and additional fruits and vegetables to the menu. They removed 2% milk, half of the white bread, pop tarts, and fruit snacks off of their school menu. To enforce the changes, they held food service staff trainings on offering more whole wheat and low fat choices. A formal policy has not been adopted, but the removal of items is sustainable.
- No items were removed from the school menu at NRHEG schools. No formal policy has been adopted, but the current school menu is sustainable.
- No items were added or removed from the school menu at Waseca Central Intermediate School during the most recent reporting period.

Schools or districts that participated in a la carte-related activities were asked what items were added or removed from school lunch and a la carte menus, as well as what responses they had received from students, staff, and parents about the additions or removals. The food service directors interviewed noted that they removed many breaded and starchy items, such as pastries and other desserts, from their a la carte lines. These items were replaced with fresh fruits and vegetables, baked chips, and cereals. They mentioned that student response was not positive at first, but as more items have been added, they have become more accepting. As one informant mentioned:

They ask for fruit when it isn't there. The kids ask a lot of questions, they ask more questions about what the food is. I also explain what it is, different ways of making it.

### *Snacks*

<b>School name</b>	<b>School population</b>	<b>Current stage</b>	<b>Sustainability</b>
Hartley	479	D	A
Montgomery-Lonsdale	1,278	D	A
NRHEG	761	D	A
TEAM Academy	72	D	A
Waseca Central Intermediate School	442	D	A
Waterville-Elysian-Morristown	916	C	B

This area includes programs such as snack carts, classroom or school-based snacks, as well as snacks students bring from home. Six schools or districts participated in snack-related activities.

- There were no changes at Hartley since January 2011, as the school continues to provide students with healthy snacks through a snack cart implemented in fall 2010. The school's wellness policy also encourages parents to pack healthy snacks for their children.
- Montgomery-Lonsdale provided healthy snacks at no charge for students in Kindergarten through 6<sup>th</sup> grade until January 2011, after which they charged 15 cents per day. The school provided elementary students with fruits and vegetables, 2% or whole milk, and 1% or skim milk in the cafeteria before school and in classrooms during non-meal times. Along with the milk, fruits, and vegetables, middle school students were also provided water and 100% fruit or vegetable juice before school. The school currently has a policy regarding snacks that students bring from home from themselves. The school is providing parents with lists of examples of healthy and non-healthy snacks.
- There were no changes at NRHEG since January 2011. District staff anticipate implementing a policy regarding snacks that students bring from home. They noted, however, that adults providing poor nutritional choices for their children at home and for school snacks are a barrier to making sustainable changes.
- There were no changes at TEAM Academy since January 2011. The school currently does not have a policy regarding snacks that students bring from home for themselves, but they plan to implement a policy in the future.

- Waseca Central Intermediate School provided a healthy snack to students on a daily basis through a snack-cart program. The school offers fruits, vegetables, 1% or skim milk, baked goods, bread products, yogurt, and 100% fruit or vegetable juice to students in the cafeteria before school and for specific after school activities. The school plans to implement a policy regarding snacks that students bring from home to encourage parents to provide healthier options.
- Students at two of the Waterville-Elysian-Morristown elementary schools are provided fruit, vegetables, bread products, or yogurt in classrooms during non-meal times. There continues to be a high level of participation, as well as continued local support to pay for students who cannot afford the program. The biggest challenge faced by the district is having enough funding for all students to get a snack free of charge.

Schools or districts participating in snack-related activities were asked how students have reacted to the healthier snacks and if they have noted any changes in the snack items parents pack for their child. Informants mentioned that students particularly enjoy the fresh fruit offerings at their snack carts. One respondent noted that if fruit was offered, students would select those items before the graham crackers and Goldfish. Some students who usually brought less healthy snacks from home are choosing not to and eating from the snack cart instead. Respondents noted small changes overall in the snack items parents pack for their children. For the most part, however, children are no longer bringing snacks from home because they are able to get one from the snack cart.

Respondents also noted that teachers and other staff appreciate the snack cart because all children are given access to a healthy snack, regardless of their family income level. One respondent noted that the healthier snacks also help the children function better throughout the day. As one informant emphasized:

I think the children really like the fact that everyone has the same choice in snack; there isn't that sense of "someone can afford something better than me." And the healthy snacks can help them maintain attention throughout the day.

Respondents discussed various approaches to ensure continued funding for the initiative. One district has been able to get funding from local organizations such as the Rotary Club, and plans are in the works to secure donations from local businesses run by parents. Another district asks for a small yearly fee from parents to keep the snack cart in operation. Students whose families cannot afford the program can still participate through donations from teachers, staff, and other parents.

### *School gardens*

<b>School name</b>	<b>School population</b>	<b>Current stage</b>	<b>Sustainability</b>
Cleveland	416	C	A
NRHEG	761	C	A
Waseca Junior High	327	C	A

Three schools or districts created school gardens to provide healthy food options and educational opportunities for students.

- Cleveland plans to expand their all-organic school garden program next school year. The school uses the garden as a learning tool, as they believe that growing food is a life skill. Cleveland collects rain water off of the school building to support feeder lines to water the plants. To ensure sustainability of the program, the school has the support of their food service staff and a teacher who is also a co-owner of a farm. Food service staff help to harvest and prepare produce for school lunches. The school also introduced nutrition-related topics to other courses, including English, math, and Spanish. Students in the Spanish class learned basic science vocabulary, students wrote journal entries about the school garden in their English class, and students measured the garden and learned about the depth of seed planting and spacing of plants in their Math courses.
- NRHEG schools plan to create a school garden in summer 2011. They have secured grants, donations, and funding from the horticulture (agricultural education) curriculum budget to begin the garden. Fourteen students and four teachers or other school staff have been involved with the project. Students in the agriculture-related classes and the Future Farmers of America program will assist with planting and caring for the garden during the summer.
- Waseca Junior High created a school garden in spring 2011. The school has finished fencing around the 50'x100' garden, added a storage shed, and planted a variety of vegetables. A year-round greenhouse is also being added to the site with a grant from the Southern Minnesota Initiative Fund.

### *Celebrations*

<b>School name</b>	<b>School population</b>	<b>Current stage</b>	<b>Sustainability</b>
Hartley	479	C	B
NRHEG	761	D	A
Waseca Central Intermediate School	442	D	A

Three schools or districts addressed issues related to food brought in for celebrations, including classroom, program/activity/sport specific activities, and school-wide celebrations.

- There were no changes at Hartley since January 2011. Although not celebration specific, the school encourages parents to pack healthy food from home and refrain from including beverages and foods without nutritional value.
- NRHEG schools plan to implement a policy regarding food that students or parents provide for celebrations. The policy will include information on the type of foods allowed. One challenge noted by school staff is the community “mind set” that sweets and high-fat foods must be the focal point of celebrations.
- Waseca Central Intermediate School indicates that they plan to make policy changes to encourage healthier options for food brought in for celebrations.

Schools or districts engaged in celebration-related activities were asked if they had noted any changes in the items parents provide for celebrations, such as birthdays and holidays. Respondents had noted small changes in the items brought in for celebrations. Parents are still bringing in cupcakes and cookies, but not in the same quantity as before. As one informant stated:

I think it's slow but sure change. They've gone from big cupcakes to mini-cupcakes and they've included a veggies thing. They serve milk from the cafeteria.

### *Concessions*

School name	School population	Current stage	Sustainability
NRHEG	761	C	A

Concessions include school stores and other concessions for school events or programs. One district is working on these activities.

- There were no additional changes at NRHEG since January 2011. In fact, the cheese sticks that were added in January 2011 as a healthy option have been removed from the concessions menu since they did not sell well and it was difficult to store them at optimal conditions.

### *Vending*

School name	School population	Current stage	Sustainability
NRHEG	761	B	C



One district is working on nutrition issues related to vending machines available for students.

- There were no changes at NRHEG since January 2011. Their vending machines currently contain the same food items mentioned in an earlier reporting period, which include both healthy and unhealthy items.

### *Fundraising*

School name	School population	Current stage	Sustainability
NRHEG	761	C	B

One district is addressing issues related to food items sold for fundraising.

- From January 2011 through June 2011, all of the fundraisers for the NRHEG elementary school were non-food items. No items were removed from the school's fundraising program.

### *Other activities:*

Schools and districts also engaged in other activities to improve student health and inform parents about the intervention. These include:

- Holding taste testing events to expose students to different foods and to assess interest in placing certain items on school lunch menus.
- Conducting trainings for seven food service staff members at the Montgomery-Lonsdale and Cleveland School Districts on food safety and how to incorporate healthier options in school lunches and snacks.
- Including information about SHIP and the School Nutrition Initiative on school websites, newsletters, and letters sent home to parents.
- Adding 20 minutes of recess before or after lunch to the Cleveland School District's daily schedule and extending lunch time to provide students with adequate time for meals.
- Hosting five Simply Good Eating events at TEAM Academy along with the University of Minnesota Extension Service. These nutrition education programs cover topics such as the importance of eating breakfast and eating balanced meals.
- Hosting two family fun nights at Waseca Intermediate School to promote healthy food choices and to provide nutrition education.
- Providing a nutrition table at NRHEG school district parent-teacher conferences.

### ***School Wellness Council follow-up survey***

A follow-up survey of School Wellness Council members was also conducted to assess their overall satisfaction with the initiative and the help they received from SHIP staff. Eleven school administrators or food service staff responded to the survey out of 16 invited to participate for a 69 percent response rate. Overall, all respondents were familiar with the overall activities and goals of Le Sueur-Waseca SHIP. School staff also found the assistance they received from SHIP staff and consultants to be helpful, and strongly agreed or agreed that SHIP staff managed the initiative effectively, provided constructive advice, and created opportunities to learn from other schools or districts working on similar issues. Most respondents felt that their School Wellness Council was successful with most of their goals and objectives, such as creating or revising school wellness policies, introducing new programs or initiatives that bring locally produced food to students or teach students about the importance of school nutrition, getting other stakeholders involved in the initiative, and changing the overall school environment or culture to promote healthier eating among students. However, several respondents felt the School Wellness Council did not represent all parts of the school or district and should include more students. All respondents were satisfied with the progress their School Wellness Council has made in terms of improving nutrition in their school or district.

### ***School Health Index***

All eight participating schools or districts completed the School Health Index (SHI), which is a nationally-recognized self-assessment and planning tool that enables schools to identify the strengths and weaknesses of their policies and programs that promote health and safety; develop an action plan to improve student health and safety; and involve teachers, parents, students, and the community to improve school policies, programs, and services.

Each of the schools or districts that completed a follow-up SHI had a module score above 70 percent. The lowest score for several schools at follow-up was in the area of “collaboration between food service staff and teachers,” which includes food service staff and educators working together to reinforce nutrition education lessons taught in the classroom. Several schools also scored lower in the “adequate time to eat school meals” category, the “food purchasing and preparation practices to reduce fat content” category, and the “sites outside cafeteria offer appealing, low-fat items” category. Potential solutions to these issues outlined by the schools include working with food service staff to continue to improve the school menu and present more healthy choices to students, rescheduling school recess and lunch periods, working with outside vendors to improve concessions choices, providing training for continuing education for food service staff, and exploring grant opportunities to continue to provide healthy snacks. Schools or

districts should continue to complete the SHI annually (or every two years) to evaluate progress on their activities.

### **Policy, systems, and environments**

One of the goals of SHIP is to change policies, systems, and environments to make the healthy choice the easy choice and to ensure sustainability beyond the end of any one particular program or funding stream. In the case of this School Nutrition Initiative, it means specifically changing policies, systems, and environments to create opportunities for healthier eating and learning about nutrition among students, parents, and school staff.

Policy, systems, and environment changes that have occurred as a result of this initiative include:

- Four schools or districts implemented or revised policies regarding snacks that students bring from home, to encourage parents to provide healthier options.
- Three schools or districts have created school garden projects, which have expanded the classroom outside and taken on a new method of teaching about healthy fruits and vegetables. These gardens also provide fresh produce that can be served in the cafeteria.
- New healthy snack carts at six schools or districts have brought about a positive change in students in relationship to snacks.
- Providing taste testing in school lunch rooms has provided a positive choice for students to consider in the present and future.
- Farm-to-School initiatives at two districts have connected schools and growers in providing more nutritious lunch options.
- Through continued educational opportunities, school food service personnel have made system changes, such as adding healthier items to school menus, which will have a positive impact on students and be sustainable.

The following are the total number of environmental changes that have occurred as a result of the initiative:

<b>Activity</b>	<b>Total sites</b>	<b>Environmental change</b>	<b>Total number of each environmental change</b>
Farm-to-School	1 school	Signs	2
Snacks	6 schools	Snack carts	6
School gardens	3 schools	School garden	3

### *Successes and challenges*

School administrators and food service staff noted that increased awareness is one of the biggest successes accomplished through the SHIP School Nutrition Initiative. This includes student awareness of healthy foods, awareness of where their food is coming from, and introduction to fruits and vegetables that they may not have tried before. One interview respondent mentioned that increased community buy-in to the initiative was a big success. Local service groups and churches had donated money to their snack cart program to allow all the children access to a healthy daily snack, something that the students may not have been able to get at home.

However, school staff also mentioned several challenges they have faced in terms of improving school nutrition through the SHIP initiative. Limited resources are a major barrier, as interview respondents mentioned lack of funding, space, and time as main challenges to improving school nutrition. Some schools provide snacks to all children free of charge, where others charge a small yearly fee to participate. In both cases, securing funding to continue providing snacks to all students was difficult. Funds to purchase more expensive locally grown produce were also a concern. Respondents also noted the challenge of preparing fresh foods with small kitchens, limited equipment, and time. One respondent discussed the challenge of finding fresh fruit and veggies in their geographic area:

I think overall in my kitchen, they're finding it is a little bit more work involved trying to do things from scratch and using better products like that. The other challenge is just trying to find the things, like locally grown fruits and veggies.

This emphasizes the need to facilitate connections between local growers and schools.

Other respondents note issues bringing staff on board and having them role model healthy eating behaviors for children. They mention that staff tends to be less accepting than the students of changes within school.

Our district didn't do enough to have our staff role model changes in nutrition. Last week was teacher appreciation week and they got donuts and rolls and the kids walked by and saw the teachers eating these donuts and rolls.

Respondents also discussed the challenge of getting more parental involvement in the initiative, noting that until they change parental habits, they won't be able to change student habits.

Changing the mindset of the parents as well. Kind of “Well, it was good for me back then, and I turned out fine. Why do they have to make these changes right now?” We run into that mindset for a lot of our initiatives, we’re looking at changing the parents’ habits to change the kids’ habits. If the kids change their habits, they won’t continue if the parents don’t change.

Schools have ensured the sustainability of their projects in a variety of ways. Along with securing donations for activities such as snack carts, several schools have also written many of their activities into their budgets. Interview participants also noted that the existence of a program champion will help ensure sustainability in other districts. One school has exceptional buy-in and participation from the social workers, who will likely be taking over the program next year. Another respondent discussed her personal motivation to keep the program going:

I took this job because...I see healthier meals. Some kids don’t get this at home. It’s just my belief to serve a healthy, fresh meal full of things that we need every day to survive. It’s something personal for me to make sure that these kids get fed and get something healthy even if it is their only meal of the day.

Factors that challenge sustainability are the same that have challenged the overall success of the initiative, namely funding and staff role-modeling. As one respondent stated:

The fact that staff have not embraced it and made it a change in their own personal lives [is a barrier to sustainability]. Role-modeling is big. If they aren’t doing it, the odds of parents and kids changing are pretty small. A push could be made in that direction through the administration. SHIP dollars aren’t necessary for that to occur.

## **Impact**

According to the Dietary Guidelines for Americans, children age 4 and older should consume between one and three cups of fruit and vegetables per day. The Minnesota Student Survey found that approximately one-quarter of ninth grade students are overweight based on their Body Mass Index, slightly more than half of students drank pop or soda the previous day, and less than 20 percent of students eat five or more fruits and vegetables a day. The current generation of children is the first in two centuries that is projected to have a shorter life expectancy than their parents because of risk factors for chronic disease including obesity. School nutrition initiatives are one way to address the issue of childhood obesity.

As a result of this initiative, many of the schools have met or partially met their projected short-term outcomes, including:

- Implementation of nutrition and wellness policies that result in students having decreased access to energy-dense foods, and students having increased access to high quality nutritious foods through school gardens, Farm-to-School initiatives, and healthy lunch and snacks
- Students and parents have increased access to information about the nutritional value of foods served at school
- School and community stakeholders have increased knowledge and awareness about nutrition
- Social norms and the school environment support healthy nutrition

Progress reports and interviews conducted with school staff also indicate that several sites are observing positive outcomes, including increasing fruit and vegetable consumption by students and decreasing consumption of nutrition-poor foods. For example, Montgomery-Lonsdale school district teachers are anecdotally reporting sustained student attention during lessons due to the exclusion of energy-dense foods from school lunch menus. According to one school staff member, students no longer have a “sugar high,” and are displaying better behavior. Respondents also note that students are opting to consume healthier choices, such as fruit. These results are an indication of the potential to meet long-term outcomes of decreased incidence of obesity and an increased proportion of students who are a healthy weight. This will ultimately improve the health of students and reduce the incidence of chronic disease in Le Sueur and Waseca counties.



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