Minnesota Farm to School Program Expansion

Fighting childhood obesity and ensuring the long-term health and wellness of Minnesotan communities

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I. Executive Summary:

Nearly 1 in 3 Americans are now obese, making obesity an increasing epidemic across the nation. Even more alarming is the continued rise in childhood obesity, now at 16.9%. In Minnesota, 14% of children are obese, ranking us at 32 within the US states/territories (www.stateofobesity.org, 2011). According to the Minnesota Department of Health (MDH), the financial burden of obesity for Minnesota was $2.8 billion in 2006 (See Graph 1). This amount was spent a decade ago and still equates to a staggering 23% of the current 2016-2017 Minnesota budget for Health and Human Services. With 89% of children in public schools in Minnesota, this is a key area to intervene to prevent the continued rise and costs of childhood obesity in Minnesota.

Graph 1: Financial burden of Obesity (MDH, 2011)

Farm to School is a program that has already been implemented in 72% of Minnesota's school districts (http://www.fns.usda.gov/ see Image 1), and the expansion of the current Farm to School program is proposed to make it consistent in public schools throughout the state. The movement seeks to fill school lunches with food from local farms, and enrich education by providing school gardens. As described on the National Farm to School Network website, “Farm to school is a common sense approach to child nutrition that empowers children and their families to make informed food choices while strengthening the local economy and contributing to vibrant communities.” Current research shows Farm to School programs in other states have resulted in a reduction of obesity rates. Oregon's obesity rate dropped from 14.1% in 2003 to 9.9% in 2011 (Childhood Overweight and Obesity Trends) after starting the Farm to School program in 2007 (Sobell et al,
By implementing this program statewide in Minnesota schools, not only will school-aged children's access to healthier foods increase, but local economies will benefit by providing farmers with a new source of revenue. The mandating of Farm to School throughout the state will promote equal access and allow success to be more accurately measurable over the years. It will also contribute to dissemination of information on healthy eating habits within the family and the overall community, which could eventually lead to lowering obesity rates as a whole. The effect of this policy on overall health aims to promote long-term healthy living for Minnesota's citizens. By implementing this program through public schools to target school-aged children, families of all socioeconomic statuses can be reached. This helps to level the playing field, an important part of leveraging successful programs.
Farm to School is an essential program to implement throughout Minnesota because it has already proven effective in other states (see Image 2). In addition to the success of this program in Oregon, a study conducted by University of California, Davis found that school nutrition education programs, like Farm to School not only lowered student’s body mass indexes (BMI) and increased their consumption of fruits and vegetables, but also changed long-term eating habits (Scherr, 2014). This is important because studies show obese children are more likely to become obese adults which increases risk of developing chronic diseases earlier in life. The percentage of obese adults has risen over 10% since 1995 (see Graph 2). If we can work to reduce obesity in children, we are essentially reducing the increasing numbers of chronic diseases in the state of Minnesota. Furthermore, 89% of children in Minnesota are enrolled in public schools, therefore this program would target the vast majority of children in the state.

Image 2: Minnesota lags behind other states in the US in Farm to School legislation (National Farm to School Network, 2015).
By expanding the Farm to School program, we strive to reach 100% participation across all Minnesota public schools. This will improve education around health and nutrition for the students, their families, and faculty as well as for the greater community via involvement of local farmers in school activities. By targeting school-aged children and their families with this proposal, we hope to reverse the trend of childhood obesity which will, in turn, reverse the trend of adulthood obesity and related diseases. This cultural shift around healthy lifestyle will greatly affect future generations and greatly decrease the $2.8 billion currently being spent managing comorbidities of obesity like diabetes, heart disease, hypertension, and stroke (see Image 3).

Image 3: Complications of Childhood Obesity
Policy Recommendation:

To ensure the success of the Farm to School program in tackling obesity with participation of schools across the state of MN, we propose legislation to be enacted that requires 100% of the public schools to participate in the program. To make this requirement possible, we will provide incentives for schools to participate. We request $15 million annually be invested in the Farm to School program, a feasible goal that can be met with the state’s surplus. The state’s current annual surplus is over one billion dollars (Minnesota Management and Budget, 2015). Therefore, requesting $15 million is a feasible and realistic number to invest in the health of the state’s children.

We propose that this mandate and funding request be enacted during the next legislative session currently scheduled for March 8, 2016. Because this is a long-term investment and it will take some time to see its benefits, we are asking for your continued support for this legislation. The benefit of reducing obesity and improving the long-term health of Minnesotans, however, far outweighs these initial expenses (see Figure 2).

Figure 2: Long-term benefits of Farm to School (Minnesota Dept. of Health, 2014)
II. The Background:
In 2006, Minnesota spent $2.8 billion on obesity related illnesses. It has a current 25.5% adult obesity rate (stateofobesity.org, 2014). If left unchecked, projected increases will rise to $3.7 billion in annual health care costs by 2020 (Minnesota Dept of Health, 2008). This troubling and avoidable expenditure of money needs to be fixed, and the state of Minnesota has options available. The National School Lunch Program (NSLP) was started in 1946. It provides a cash subsidy and USDA foods to both public and private schools that offer their students free and reduced-price lunches that meet FDA standards. It is a program that is recommended by the federal government, but it is up to states to participate. In 2012 the program evolved into Michelle Obama’s Let’s Move! campaign. New FDA standards for school lunches enacted in 2013 require school breakfasts and lunches to have more fruits, vegetables and whole grains and lowered calorie counts per meal. In return, schools receive more federal funding for meals. Implementation has proven difficult for Minnesota schools because the regulations are constantly evolving, difficult to follow, and costly. Furthermore, student participation has declined due to
unpalatable food. This leads to hungry children and wasted food, which is not cost effective (Government Accountability Office, 2014).

In 2008, Minnesota launched the Statewide Health Improvement Program (SHIP) as an effort to promote healthy behaviors by targeting risk factors for chronic disease. Specifically, SHIP funds are used to implement community-based programs aimed at obesity, physical activity, and decreasing tobacco exposure with the goal of improving health care costs. One such strategy is the Farm to School movement, which has contributed to bringing obesity rates down in other states. Farm to School continues to grow in popularity due to its success in providing access to healthy foods by connecting schools with local farmers. Students of all ages are learning how to make healthier choices. They are also learning where their food comes from and even how to grow it themselves. This success story also includes school gardens and cafeteria salad bars. Evaluations show that children with access to these programs are choosing to eat more servings of fruits and vegetables each week (Joshi and Azuma, 2009).

![Figure 3: Obesity Rate Stable in Minnesota since 2010](Minnesota Dept. of Health, 2015)

Expanding Farm to School makes sense because children can be reached early enough to absorb long-term healthy lifestyle habits. In addition, with a budget surplus of over one billion for this fiscal year, Minnesota has the ability to empower all of its children with the knowledge to choose healthy, nutritious meals. The movement has already been so successful that the obesity rate in Minnesota has stabilized since 2010. This is in comparison with the rising obesity rates seen in neighboring states and the USA in general, that don’t have similar healthy behavior programs, (see Figure 3). Stabilized obesity rates have resulted in estimated savings of $265 million in obesity-related medical costs since 2013 (Finkelstein et al, 2012). Farm to School is clearly a major influence on these improvements and it would be of great benefit to Minnesota to use a portion of the surplus to expand the movement throughout the state, further reducing the obesity
rate as well as healthcare expenditure.

III. Proposed Solutions & Strategies:

The recommendation is to implement the expansion of the statewide Farm to School program through six levels:

1. Individual Knowledge and Skills

   **Solution:** It is crucial to implement a Farm to School program in the community so that students, families, and teachers have specific individual knowledge of where their food comes from and encourage them to eat the nutritious food brought to the schools. We propose to enhance individual knowledge and skills in three ways. Knowledge and skills can first be instilled by bringing the farmers to the schools in order for the farmers to educate the school community about their work as well as allowing the farmers to understand the school environment. Next, we propose to bring together members of the community with the farmers who grow their food. And finally, we propose establishing a Farm to School lesson plan that will incorporate agriculture, nutrition, and healthy
lifestyles into the existing school curriculum ranging from various subjects such as art to science.

**Strategy:** We intend to bring the community to the farms and the farmers into the community by compensating farmers to go to the schools to educate the students, teachers, and lunch providers. By bringing the students, parents, teachers, and food workers to the farms we can achieve a fuller understanding of where the food comes from, how it is grown, and the knowledge of local farming. At the High School and Middle School levels, we propose implementing the Farm to School Youth Leadership Program which is a curriculum that engages students with hands-on learning activities, ultimately strengthening schools programs and the relationship with local farmers. In addition, to achieve a curriculum that incorporates the Farm to School program, we propose allocating schools funds in hiring a coordinator position who will be responsible for seeing the success of the program through facilitation, administration, and counseling.

2) **Promoting Community Education:**

**Solution:** Through an expanded Farm to School program, community education regarding obesity can effectively be achieved, specifically among middle and high school aged children. There are 2,637 public schools in Minnesota serving 842,854 students. Of this number, there are 291 Middle Schools and 699 High Schools (EducationBug.org, 2015). This expansive population is desirable because it transcends many ethnic and cultural boundaries. By targeting this student population (see Image 4), the children will acquire the independent ability to make healthy food choices and prepare their own meals. Solutions can include increasing knowledge, changes in attitudes and values, increased skills, modified behavior, improved health outcomes.

Image 4: Age Targets of Farm to School (USDA, n.d.)

**Strategy:** In order to facilitate learning, health fairs are proposed in which students will be provided with pamphlets about current local foods in season, complete with recipe ideas and nutritional information. The health fairs will be run by the schools using a portion of the funding provided by the state. The intention is for the provided literature to reach children's families at home and further promote long term healthy choices. A necessary component of generating interest includes active demonstrations showing how
to prepare meals, which can occur in classroom programs within home economics classes. Once these children have the education necessary to choose and prepare healthy meals themselves, they will be empowered to bring the knowledge home to reach their families resulting in a trickle-up effect. The goal of this community education endeavor is not only to promote present healthy habits, but also contribute towards long-term health literacy and health benefits. There are, however, gaps related to government provision in resources that would help strengthen this program and others like it. Programs like these require sufficient funding and technical assistance at the state and federal level for adequate surveillance and evaluation of their efficacy. Also, these communities need to be able to track and monitor a program’s data in order to identify if nutrition needs are being met, and if health disparities are being reduced.

3) **Provider Education:**

**Solution:** The role of provider must be expanded to include all school staff, from the principals and leadership staff, to the cafeteria workers preparing the food. This role should also include parents, healthcare providers and farmers. These providers must be given sufficient training about healthy foods and the use of fresh seasonal products in meals catered to children. In addition, they will learn about safe food handling and storage of fresh products. The comprehensive training that will be provided to our stakeholders will not only result in healthy school lunches. Our stakeholders will impart healthy nutrition knowledge to Minnesota’s children by both formal teaching avenues (i.e. in class) and informal teaching avenues, (i.e. by example as role models).

**Strategy:** Clear guidelines will be provided regarding the type and amount of local, seasonal, and staple foods that are required in daily menus. Menus will be easy to follow and food-supply chains will be set-up to insure timely receipt of necessary produce and supplies. Ample funding currently exists to cover training and support costs. On an annual basis, USDA awards up to $5 million in competitive grants. Of the four grants available, the training grants are intended to provide technical assistance in the area of local procurement, food safety, culinary education and/or integration of agriculture-based curriculum. Venues such as webinars can provide low cost, effective, location non-specific education. Training awards range from $15,000- $50,000. In 2014, one grant valued at $90,761 was put in place to hire an employee to assist schools in implementing Minnesota School Garden guide and the Farm to School Youth Leadership program, matching school food service districts with local farmers (United States Dept of Agriculture, 2014). It is anticipated that these relationships will provide a foundation of farmers who source local foods, and schools that receive the food via these local farms. The hope is that sustainable commerce and health can prevail.

4) **Fostering Coalitions:**

**Solution:** The annual Farm to School Conference can be supported by mandating attendance by both school administrators and members of each school's PTA. Our recommendation aims to unite the Farm to school network with every school in the state on both an educator and community level.
**Strategy:** The mandated cooperation of these groups will facilitate the common goal of introducing a viable alternative for healthy food options for the children of Minnesota. Currently 72% of Minnesota school districts are already engaged in Farm to School Activities, and 8% are thinking about doing so. By mandating and thereby increasing attendance and exposure at the already existing annual conference, the uninvolved schools will receive the extra push they need to initiate Farm to School programs in their district. This can be measured by comparing future USDA Farm to School census data, which will hopefully reflect the increased interest and involvement that will come as a result of increased attendance at the conference.

5) **Organizational Practices:**

**Solution:** Simply providing schools access to fresh foods from farms does not guarantee the health of students. Schools need to be provided with the skills and resources to turn this fresh food into healthy meals while also making it financially sustainable.

**Strategy:** As part of the Farm to School Program, schools will mandate their Head Cooks and/or Food Service Directors participate in an integrated training on how to incorporate healthier foods into the menu. This includes attending nutrition-related and menu planning workshops and learning about successful existing programs such as Grand Marais Schools of Cook County. This training series will empower Food Service Managers to make the organizational changes needed to support the influx of Farms to School foods and provide the skills needed to improve the menu options. This will require significant upfront investment, such as new cooking and storage equipment, and potentially more staff. Unfortunately most school kitchens in the state are only able to handle storing and reheating frozen meals, so will need to invest in equipment for storing perishable foods and cooking fresh meals daily.

6) **Policy and Advocacy:**

**Solution:** Minnesota has already been a forefront in the Farm to School programs including 208 districts and serving 1,351 schools. The state must, however, continue its political momentum and provide the mandate and funding for the remaining schools.

**Strategy:** In the last three presidential elections Minnesota has consistently held the highest percentage of voter turnout in the country. Not only has Minnesota exemplified a politically active populace, but also as a state, they have steadily voted for the Democratic president in the last seven elections. The governor of Minnesota, Mark Dayton belongs to Democratic-Farmer-Labor Party. It is essential to understand the political background of Minnesota, in order to infer potential opponents and supporters of our health policy advancement efforts. For example, Governor Mark Dayton is rated 100% by APHA (The American Public Health Association, 2003). The significance of this percentage is very important when considering influence on health policy. The APHA is one of the biggest organizations of public health professionals in the world, and is primarily concerned with issues affecting personal health, federal and state funding for health programs, and policies pertaining to chronic and infectious disease.
IV. **Projected Outcomes:**

First and foremost our long-term goal is to have an impact on the obesity rate in Minnesota within 5 years. Through short term plans and program implementation we can assure we will have an impact. We offer a realistic goal of encouraging schools to source at least 30% of lunches from local producers to include food categories ranging from dairy, vegetables, fruits, and grains, and for schools to source local foods by creating incentives. Schools that are able to source more than 30% of their lunch meals locally will receive more state funds to support their goal.

A second outcome is that children’s consumption of healthy foods, especially seasonal fruits and vegetables, will increase. Although the Farm to School program is currently limited to providing healthy food during lunch, the principles and structure provided to children will change their eating habits and thus overall health, long-term.

Thirdly, school staff and administration will actively contribute to, and support the process of developing successful Farm to School programming. Ongoing training and participation in the annual National Farm to Cafeteria conference will promote continued education of the stakeholders. It will also empower the stakeholders to use their newly acquired skills and knowledge for the betterment of their state.

Farm to School has already been a tremendous success in many Minnesota schools. We would like this success to occur in the remaining schools in the state.

V. **Measures for Evaluation:**

We will use the following as evaluation criteria to monitor how the Farm to School mandate is affecting Minnesota:

- Measure the percentage of increased intake in fruits and vegetables after implementing at least 30% of local produce into the school cafeterias - an example of an available tool is the Nutritionquest Kid’s Questionnaire (Joshi and Azuma, 2009).
- Measure student’s BMIs at baseline and then annually to monitor changes.
- The financial viability of the program, including its economic effectiveness could be measured using the Template for Assessing Financial Viability of Farm to School Programs (Joshi and Azuma, 2009).
- Measure the attendance increases by school administration at the Annual Farm to School conference.
- Measure cafeteria meal participation as a direct indicator of revenue for the school food service.
- Utilize the Office of Performance (OPI) to help coordinate policy through quality improvement methods and tools to increase the efficiency and effectiveness of public health policies. This office is already in place using local measurement data to promote continuous quality improvement in Minnesota’s public health system.
VI. **Conclusion:**

Minnesota has faced its costly obesity problem head-on with various strategies. The most promising of these is the Farm to School movement, made possible by the Statewide Health Improvement Program. The effort has been so successful that the obesity rate in Minnesota has actually leveled off. Much of the credit is directly attributable to state-sponsored healthy behavior programs. More effort invested in Farm to School is needed in order to keep the trend going and bring the obesity curve down. This means removing barriers to access, such as cost and location, which prevent many individuals from purchasing and acquiring healthy, fresh foods.

As a way to address this issue and see long term benefits, we propose the implementation of a statewide School Lunch Program that follows the model of the Farm to School. Such a program will have the greatest long term effect with low associated costs - only 3.8% of Minnesota’s $1.9 billion budgeted surplus. We request that this mandate and funding to be enacted during the next legislative session beginning March, 2016. Although this is a long-term investment, we do expect to see benefits within five years, and we are asking for your continued support for this legislation. The benefits of reducing obesity and improving the long-term health of Minnesotans, far outweigh these initial expenses. Farm to School is so much more than a means by which healthy, locally farmed food is brought into schools. It is a movement that advances goals required for a successful future, including enhancing children's food literacy, strengthening local economies, promoting children's health, and advancing sustainable food production.
Resources


