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Nutrition and Food
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Eating the Rainbow at Bethel Schools



Bethel Elementary 1st and 2nd graders recently took part in a “Rainbow Challenge” where they logged every fruit and vegetable they ate during school for one week. The winning class, pictured, proudly consumed 101 fruits and veggies!

At a time when schools across the United States are bemoaning the health habits of their students and scrambling to address concerns about obesity and disease, Bethel Elementary and Whitcomb Jr./Sr. High School face a unique opportunity to make strides with children’s nutrition. This year, Bethel began offering comprehensive elementary health education for students in grades preK-6 to compliment our middle and high school health programs. With two fairly new health educators on staff, strong administrative support, and a retiring food service director, we are poised to make significant changes in our school nutrition program. We are thinking big –exploring farm to school, a school garden, and designing our nutrition curriculum around where food comes from—but we realize that major changes take research, planning, and a great deal of time. In the shorter term, we are eager to help our students eat better right away, which leads us to tackle this important question: How can we increase the number of fruits and vegetables consumed by Bethel students during school?

Hope for Whole Foods: Reviewing the Literature on Student Fruit and Veggie Consumption

“Students won’t eat fruits and vegetables” is right up there with “kids hate to bathe” and “little ones won’t go to sleep without a fight” in the litany of assumptions that adults make about children. Fortunately, a growing body of research supports the notion that students really will consume fruits and veggies during the school day. One interesting review of children’s food choices published in *The International Journal of Behavioral Nutrition and Physical Activity* noted that, “children’s perceptions of appropriate time, settings and occasions for eating fruit and vegetables influence their opportunities for eating fruit and vegetables.”¹ In other words, if eating fruits and vegetables becomes normal and expected during the day, we can reasonably hope that children will choose more produce at school. Excellent work underway throughout our country points to several areas where we can increase the number of fruits and veggies kids eat at school by offering students greater voice and choice in food, by wisely marketing and promoting fruits and veggies, and by providing robust nutrition education to support and inspire healthy decisions by students.

Allowing students to have a say in the fruits and vegetables offered at school is an important first step in normalizing and promoting nutritious foods. The Alliance for a Healthier Generation notes that, “giving students an active role in determining the food they eat has two benefits. First, you get immediate feedback on what foods students actually like and will eat regularly. Second, students are more supportive of healthy changes that they’ve helped make.”² Students can provide input into the fruits and vegetables offered at school by participating in taste-tests³ and serving on school wellness groups⁴. In her work with TheLunchbox.org, Chef Ann Cooper points out that, “a child must be offered a new food up to 10-15 times before they will eat it. With that information in hand, we have found that *tasting, tasting, tasting* is a great method for overcoming their resistance.”⁵ Furthermore, *Serving Up a Culture of School Health, Wellness, and Nutrition* points out that the simple act of food service staff stressing that they value—and will use--student feedback from a taste test can increase consumption and strengthen children’s sense that their voices matter at school.⁶ The Smarter Lunchroom initiative suggests creating a “SNAC (Student Nutrition Action Committee)” to foster student engagement and involvement in school food.⁷ Student groups can survey their peers about fruit and vegetable preferences, make requests and recommendations for nutritious food, and even help design signs and creative names for healthy food options. As we strive to encourage

students to eat more fruits and veggies, consistently seeking their input can ensure that nutrition is not something done to kids but is an active collaboration among the entire school community.

In addition to engaging students in the change process, inexpensive marketing and promotion techniques can be used to increase fruit and vegetable consumption. According to Smarter Lunchrooms, simple changes such as placing nutritious items in attractive serving bowls⁸ and using colorful labels to name foods can have a significant impact on students' food choices.⁹ The *School Health Guidelines to Promote Healthy Eating and Physical Activity* also suggests prominently displaying fruits and vegetables in the serving line, slicing foods attractively in wedges, and even attending to lighting to ensure that nutritious food looks appealing.¹⁰ A final strategy for promoting fruits and vegetables involves taking a page from the food industry and using likable characters to market fruits and veggies to kids. Instead of Shrek hawking Twinkies, the USDA's MyPlate Character Cards can be used to get young students excited to try "Farrah Fruit" and "Reggie Veggie."¹¹ In an article from NPR's The Salt, research noted a threefold increase in choosing vegetables among students exposed to character banners and a brief video about "Super Sproutz" characters during school lunches.¹² Perhaps the most exciting element of improving fruit and vegetable marketing in schools is that minor, inexpensive changes in the lunchroom can lead to significant improvements in the number of fruits and veggies students choose.

Ultimately, to have a lasting impact on children's health, of course, taste-tests and lovely fruit trays are not enough and schools must offer robust, evidence-based nutrition education to build a rationale for students to choose more fruits and vegetables. TheLunchbox.org notes that, "the most successful school lunch programs are supported by effective marketing and education programs that connect the food served in the cafeteria with developing healthy lifestyles, nutrition education, agriculture, and cooking."¹³ Schools can utilize the Health Education Curriculum Analysis Tool Module HE (Healthy Eating Curriculum) to gauge the quality and scope of their nutrition education efforts. In addition, research cited in the CDC's *Guide to Strategies to Increase the Consumption of Fruits and Vegetables* suggests that nutrition education should, "focus on concrete experiences with food" such as growing, preparing, and tasting fruits and veggies during class time.¹⁴ A final element of increasing healthy food choices through nutrition education is the importance of well-trained and enthusiastic teachers. At the Swanton School, according to *Serving Up a School Culture of Health, Wellness & Nutrition*, students showed greater receptivity to fruits and vegetables when they were introduced by an enthusiastic teacher. Similarly, at Vergennes Union Elementary school, only half the students

ate produce offered through the fresh fruit and veggie grant. Participation increased significantly after teachers were trained in how to conduct taste-tests and participated along with their students.¹⁵ Although highly effective health education programs contain many components, it is clear that touching, tasting, and preparing fruits and vegetables during health class, under the supervision of an enthusiastic, well-trained teacher, can have a significant impact on students' consumption of nutritious foods.

For schools like Bethel, who are just beginning to make nutrition a priority, ample evidence supports our hope that students will eat more fruits and vegetables during the school day. Data from our own answers to the School Health Index Nutrition Services Module underscores the need to convene a School Nutrition Team to begin this important work. By making simple changes to our school food culture—giving students more choice in nutritious foods, utilizing behavioral economics in the lunchroom, and explicitly linking health education to fruits and veggies—we can create meaningful change in the short term that will only be amplified as we strengthen our program in the years ahead.

Works Cited

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Desired Change Outcomes

1. Create a School Nutrition Team comprised of food service staff, health educators, and administrators to draft school-wide nutrition initiatives and goals.
2. Offer Bethel students opportunities to taste-test fruits and vegetables at least once a month.
3. Employ Smarter Lunchroom techniques in the cafeteria.
4. Strengthen connections between the elementary health education and school food service program by: displaying nutrition projects in the cafeteria, preparing and tasting food during health class, and sharing student feedback about fruits and vegetables with food service staff.

Data Collection

1. Success of the School Nutrition Team will be measured by the number of meetings held by the end of this academic year (with a goal of at least three meetings) as well as by staff participation. At a minimum to ensure the team's success, the food service director and at least one health teacher and one administrator must be present at each meeting.
2. In taste-tests to occur during health class and in the cafeteria, students will be surveyed about which foods they like and dislike. Data will be shared with the food service director with the intention of incorporating more popular fruits and vegetables into school lunches. At the end of the school year, the Elementary Health Educator will review all the taste-test data to gauge whether or not students grew more receptive to new foods by participating in regular taste-tests.
3. Prior to the implementation of Smarter Lunchroom techniques, the School Nutrition Team will create a plan to assess students' current consumption of fruits and vegetables in the school lunch program (for example, by reviewing foods ordered in a typical week, surveying to see which foods students choose, and observing what foods are being thrown away). An identical follow-up assessment will take place 2-3 months after adopting Smarter Lunchroom Strategies.

4. Photos and lesson plans—which will be compiled as part of my peer review portfolio—will provide evidence of connections made between health classes and the cafeteria. Feedback from students in health will be shared during School Nutrition Team meetings. Most significantly, the school health teachers will conduct the HECAT Health Curriculum module to ensure that Bethel is providing high quality nutrition education to all students.

Implementation Plan

As Bethel begins to place greater emphasis on children's nutrition, we can undertake a number of steps in the short term to improve our students' health by increasing the amount of fruits and vegetables consumed during the school day. In addition to preventing illness and helping students focus in class, this effort will help form healthy life-long food habits and serve as the first building block of the world class nutrition program we intend to build.

Our first priority will be to form a School Nutrition Team to ensure that the adults in Bethel are working collaboratively to improve student nutrition. Our results from the School Health Index Modules indicate significant weakness in collaboration between cafeteria and classroom, use of Smarter Lunchroom Techniques, and training for food service staff. The School Nutrition team will convene before January 2017 and will meet at least three times before the end of the academic year, then continue indefinitely. Initially, this will be a small group comprised of the food service director, health teachers, and administrators. Beginning with just a few key staff members around the table will allow us to form relationships, assess needs, set goals, and target improvements in a safe environment. Over time, as we expand our program to hopefully include farm-to-school and a school garden, we can add new members to the Nutrition Team.

The School Nutrition Team will plan monthly taste-tests from January through May 2017. A schedule will be developed that mixes classroom-based taste-testing of fruits and vegetables with opportunities to sample new foods in the cafeteria. In the context of elementary health classes, students will choose and prepare recipes to take an active role in the testing process. The health teacher will survey students after every class tasting and share feedback with the food service director. Cafeteria tastings will be led by food service staff with the goal of finding new fruit and vegetable recipes that students will eat. The School Nutrition Team will also explore the possibility of setting up a Student Wellness Activities Group for 5-6th grade students, to be led by our elementary health teacher. If enough students show interest, the group can take

an active role in recommending fruits and vegetables to try and surveying their peers during cafeteria taste tests. By involving all students in tastings each month, we not only gather data about their preferences but we also engage them in the process of changing our school food culture. Getting students on board will be critical to our success!

To further entice students to choose fruits and vegetables at school, we will utilize Smarter Lunchroom techniques. The School Nutrition team will discuss this approach and complete the Smarter Lunchroom assessment by the end of February 2017, with the goal of incorporating at least four Smarter Lunchroom techniques by the end of the 2016-17 school year. We will also invite representatives from VT FEED to join one of our Nutrition Team meetings to provide additional suggestions. Using data from before and after implementing Smarter Lunchroom approaches, the School Nutrition team will assess the impact of these changes at our final meeting of the academic year. Our goal will be to continue successful techniques indefinitely as well as to incorporate additional Smarter Lunchroom ideas in 2017-18.

Finally, strengthening the cafeteria-classroom partnership will be accomplished through sharing updates of our work during regular Nutrition Team meetings, providing feedback from taste tests, and displaying student nutrition-related projects in the cafeteria. Beginning in November 2016, the elementary health teacher will provide monthly materials emphasizing fruit and vegetable consumption for the cafeteria bulletin board in consultation with the food service director. Student work will be displayed as often as possible to generate enthusiasm and reinforce messages learned in health class. The high school and elementary school health teachers, who already meet regularly, will also utilize professional development time to complete the Health Education section of the HECAT by the end of this academic year. The HECAT process will help align our preK-high school nutrition curriculum and also serve as a yardstick by which we can measure our current nutrition teaching and identify areas for improvement.

There is much work to be done to improve the nutrition of Bethel students. Fortunately, ample evidence supports our view that students can and will choose fruits and vegetables during the school day. By implementing simple, low-cost strategies such as taste tests, Smarter Lunchroom techniques, and classroom-cafeteria collaboration, we believe we can lay the foundation for a major shift in our school's food culture and begin improving our students' health, one fruit and veggie at a time.

