

# HEALTH IMPACT STATEMENT

## Hawaii's Statewide Effort to Improve the School Nutrition Environment ([Domain 2 / Strategy 3](#))

### PROBLEM DESCRIPTION

The Hawaii Department of Education (HDOE) is one of the largest school districts in the country, with 256 schools. More than half of students enrolled qualify for free or reduced price lunch and approximately 100,000 school meals are served each day. Over the last 10 years, Hawaii has experienced many successes in their school nutrition environment including removing trans-fat, providing grain items that are at least 50% whole-grain, making more entrees from scratch, offering milk options that are 1% fat or fat-free, and stocking vending machines with only water. Childhood obesity, however, continues to be a significant public health challenge with almost 30% of Hawaii's high school students reporting they are overweight or obese. In addition, only 21% of high school students consume 2 or more fruits per day and even fewer (12%) eat 3 or more vegetables per day (YRBS, 2017).

It is essential to invest time and resources on healthy eating strategies in schools as children spend a substantial portion of their time in the school setting. Schools have the ability to play an instrumental role in promoting student health and preventing childhood obesity. Although schools cannot tackle the obesity epidemic alone, offering nutritious school meals is one way to help improve student health outcomes, increase academic achievement, boost attendance, reduce behavior problems, and promote good eating habits. For many low-income children, schools may provide their only nutritious meal of the day. Therefore, it is imperative to improve the nutritional content of meals during the school day, especially given the potential to impact so many children.

In order to reduce rates of childhood obesity, nationwide efforts have focused on improving the nutritional quality of school meals through the establishment of policies and practices that promote healthy food procurement. The Healthy Hunger-Free Kids Act of 2010 (HHFKA) launched new rules to help fight childhood obesity and ensure that students have access to healthy meals in school. HHFKA directed the United States Department of Agriculture (USDA) to update school meal patterns and nutrition standards, including a provision that students select at least one fruit or vegetable (F&V) in order to receive federal reimbursement and a requirement to increase the servings and variety of vegetables. Hawaii's statewide Wellness policy is another tool that has been important in promoting student wellness, meal standards, and nutrition education in schools. Collectively, these federal and state policies aim to provide a platform to improve student access and student consumption of healthy foods served in schools.



### INTERVENTION

In order to strengthen Hawaii's school nutrition environment, several statewide activities and initiatives were developed to enhance national and local nutrition guidelines and wellness policies.

A statewide needs assessment was conducted with 76 HDOE cafeteria managers in the Fall of 2013, which led to professional development workshops with 431 cafeteria staff across all 7 regional local education agencies (LEAs) in October 2014. Workshop topics included reducing sodium, increasing F&V consumption, food safety, healthy fundraisers, smarter lunchroom strategies, scratch cooking, standardized recipes, reading nutrition labels, knife skills, measuring ingredients, and wellness policy implementation.

CDC 1305 funds were also used to create an Eat Your Veggies campaign in which a nutrition guidance document and posters for the 5 USDA vegetable subgroups were developed and distributed to HDOE schools in all 7 regional districts in the Fall of 2014. An online survey was completed in the Spring of 2015 by 148 cafeteria managers to assess the effectiveness of the poster campaign in increasing the knowledge of nutritional benefits of vegetables and in promoting awareness of the 5 vegetable subgroups.

The Department of Defense (DoD) fresh fruit and vegetable program allows schools to use entitlement dollars from USDA foods to buy fresh produce. Cafeteria procurement data is often under-utilized, so a study was undertaken to analyze Hawaii's DoD F&V procurement data (FFAVORS ordering system) for all HDOE schools for the month of September from 2012 to 2017. This timeframe coincides well with the start of the HHFKA implementation in the 2012-13 school year and the CDC 1305 grant period. The goal of the procurement analysis was to gain a better understanding of the purchasing patterns of F&Vs and to see if there was an increase in the quantity and variety of F&Vs served to Hawaii students in the last six years.

## HEALTH IMPACT



Survey results from the 2013 needs assessment showed that 85.3% of the cafeteria managers identified their top professional development need as implementing the new USDA meal pattern guidelines (HHFKA). This topic was included in the October 2014 statewide workshops, where 90.4% of cafeteria staff strongly agreed or agreed that their understanding and knowledge of USDA meal pattern requirements for vegetables increased following the workshop. In addition, 93.4% of cafeteria staff stated that they planned to encourage student consumption of vegetables.

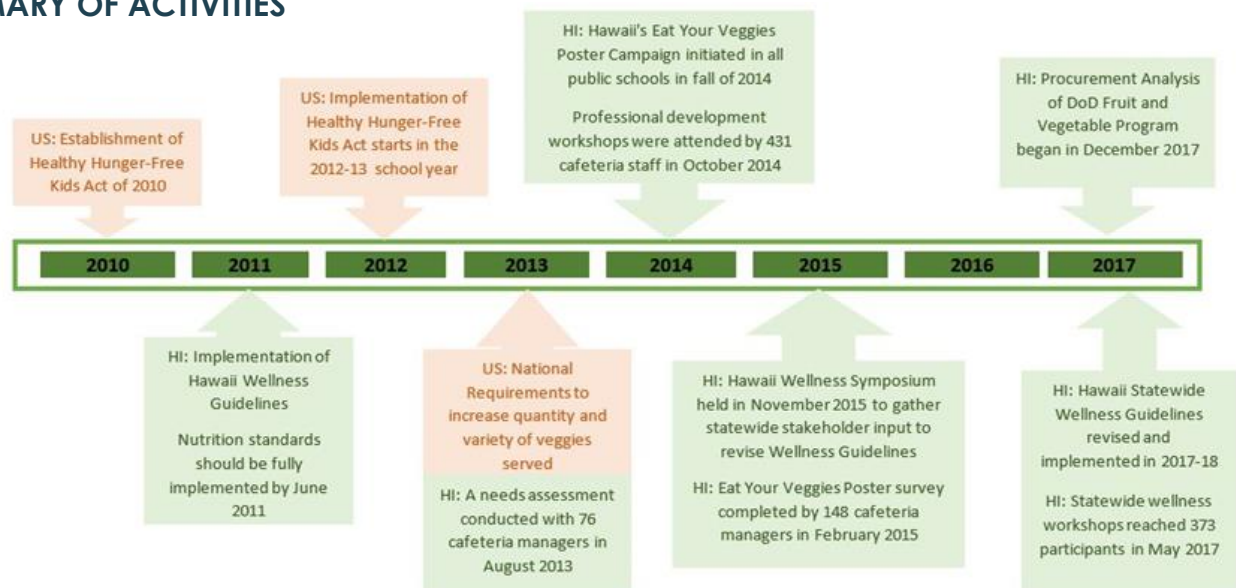
In February 2015, a statewide survey revealed that 44.4% of the cafeteria managers believed that the Eat Your Veggies posters were effective in promoting awareness of the 5 vegetable subgroups among cafeteria staff. Almost half of the managers (49.3%) acknowledged that the posters were effective in increasing knowledge of the nutritional benefits of

vegetables among cafeteria staff. Managers also reported that students most frequently selected the starchy vegetable subgroup for their meals, while legumes were the least selected vegetable subgroup by students.

An analysis of Hawaii's DoD procurement data for all HDOE schools indicated that there was an increase in the number of F&Vs purchased from 2012 to 2017 (fruits: 177,452 lbs. to 210,284 lbs.; vegetables: 84,887 lbs. to 151,605 lbs.). This also corresponded with an increase in funds being spent on F&Vs from 2012 to 2017 (fruits: \$188,827 to \$293,793; vegetables: \$148,318 to \$297,336.59). This means that 172,104 students had increased access to F&V through the DoD program. In addition, there was an increase in the variety of F&V items purchased from 2012 (26 items: 7 fruit and 19 vegetables) to 2017 (30 items: 9 fruits and 21 vegetables). New F&Vs acquired through the DoD procurement process included pears, strawberries, squash, and sweet potato. When assessing if F&Vs from the DoD program were purchased locally or from the continental US, the majority of produce (in pounds) was purchased from the continental US in 2015 (76.5%) and this increased further in 2017 (83.8%).

DOH will continue to partner with HDOE to support healthy nutrition environments in schools. This is likely to include a Garden to Cafeteria Plan, scratch cooking, professional development for cafeteria employees, and nutrition education.

## SUMMARY OF ACTIVITIES



## HAWAII STATE DEPARTMENT OF HEALTH

Authors: Rebekah Rodericks, Jennifer Ryan, Lance Ching  
 1250 Punchbowl Street, Honolulu, HI 96813  
 T: (808) 586-5491  
 E: ariana.lospinoso@doh.hawaii.gov



This project was supported by the CDC State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke (DP13-1305) grant.