School pantry “Mystery Box Cook-Off” increased students’ food insecurity awareness

AT A GLANCE
The “Mystery Box Cook-Off” improved high school students’ food insecurity awareness and increased confidence in planning and preparing meals at home.

The Situation
An estimated 41.2 million Americans lived in food-insecure households in 2016, and 13 million were children. Food insecurity refers to an inability to acquire adequate and nutritious food to sustain a healthy and active life due to a lack of money or other resources. In Idaho, one in five children is struggling with hunger or food insecurity. Children who are food insecure experienced a reduction in the quantity, variety and frequency of food intake. Several studies suggest that food-insecure children have an increased risk of negative health, development and socialization outcomes. Hence, food insecurity among children is critical because it affects not only children’s current health status, but also their future well-being.

Our Response
University of Idaho Extension Eat Smart Idaho is a federally funded program that provides nutrition education to low-income Idahoans. The program promotes behavior change by educating adults and youth about dietary food quality, food security and food safety. In addition, Eat Smart Idaho engages community partners to support policy, systems and environmental changes for target audiences to make healthy choices.

Eat Smart Idaho partnered with Canyon Ridge High School in Twin Falls, Idaho to adopt a healthy food pantry. In particular, the team helped reorganize the pantry based on MyPlate food groups and the first-in-first-out concept. Healthy eating signage including MyPlate messaging and healthy choice identifiers were posted in the pantry.

In April 2018, family and consumer sciences (FCS) Extension educators collaborated with Eat Smart Idaho and FCS teacher at Canyon Ridge High School to hold a school food pantry “Mystery Box Cook-Off.” The purpose of this event was to create awareness of food insecurity in Idaho among high school students and help students understand how to stretch food dollars and eat healthy. Prior to the cook-off, students toured
the school pantry to give them a better understanding of where it was located, what foods were donated and how they were organized. Students were encouraged to get the word out that the pantry was available for anyone who needed it.

In addition, three training sessions were offered to the FCS students at Canyon Ridge High School. 40 FCS students from grades 10-12 participated in the training sessions. Topics discussed included:

- Food insecurity and its impact in Idaho
- MyPlate guidelines
- Cost of preparing meals at home versus eating out
- Meal planning
- Nutrition facts label
- Safe food handling practices
- Components to make a delicious meal

Students were randomly assigned to one of 10 teams to participate in the cook-off. Each team was given a mystery food box to plan, prepare and present a dish consisting of at least three food groups using the foods provided. Each food box contained a protein, grain, fruit and vegetable that came from the school food pantry. Students were also provided yogurt for the dairy group as well as condiments.

Four judges were invited to evaluate the cook-off based on food groups, food safety, teamwork, creativity, flavor and meal presentation.

**Program Outcomes**

An evaluation form was distributed to the students following the cook-off. Of 40 participating students, 31 completed the evaluation form, including 14 males, 16 females and one unidentified gender. Of those responding, 11 students identified themselves as Hispanic or Latino and 18 as non-Hispanic or non-Latino.

Out of 31 students, 81 percent reported increased awareness of food insecurity in Idaho and its impact after this event. 22 students (71 percent) reported increased understanding of identifying healthy food using MyPlate and 18 students (58 percent) increased knowledge of the cost of preparing meals at home versus eating out.

Additionally, students were more confident to use the Nutrition Facts Labels to select healthy foods (84 percent) and make smart food choices for their dollar (74 percent). The majority of students (90 percent) understood the components of making a delicious meal (e.g., taste, aroma, flavor). They were more confident to gather and read recipes (74 percent), organize cooking stations (58 percent), practice safe food handling (58 percent) and make healthy, balanced meals at home (61 percent).

Overall, 90 percent reported being moderately to completely confident using these practices on their own. 21 students (68 percent) found the information from the training sessions was very to completely useful and nine students (29 percent) reported moderately useful.

**The Future**

We plan to include developing a protocol to provide education on food insecurity awareness and continuing to collaborate with FCS teachers in middle or high schools with a school-based pantry to educate youth using the “Mystery Box Cook-Off” program.

**FOR MORE INFORMATION**

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