

Adapting the Model for Improvement framework to a public health issue in a school setting

Details at <http://www.nyhealth.gov/statistics/chac/improvement/improvement.index>

Plan

Identify an opportunity and plan for improvement

1. Getting started

Improving nutrition and physical activity outcomes are identified as priorities in most communities in New York State. In 2009, the New York State Department of Health adapted the Model for Improvement to nutrition and physical activity projects in Clinton, Franklin and Schenectady counties. This initiative was supported by a grant from John Snow, Inc. (JSI), through funding from the Office of Disease Prevention and Health Promotion, U. S. Department of Health and Human Services.

2. Assemble the team

The Quality Improvement Team included staff, academia and school representatives from the three counties. Team members drafted a charter that explained the critical need to work on improvements in physical activity and nutrition. The charter also stated the need to explore the feasibility of adapting the improvement framework within a community setting. The three teams wrote individual aim statements aligned with the charter. The team faculty included staff from Cornell University's Food and Brand Lab, Yale-Griffin Prevention Resource Center and a quality improvement consultant.

Three AIM Statements:

1. To achieve a 5 percent increase in the choice of fresh fruit, vegetarian options and healthier alternatives as part of a reimbursable meal in three school cafeterias by the end of the school year.
2. Increase overall number of cafeteria lunches sold by 10 percent by the end of the school year.
3. Develop an indoor walking track and increase the physical activity of at least 50 percent of fourth grade students and staff by at least 20 minutes per week for 6 weeks over a 10-week period.

3. Examine the current approach

Cornell University's Food and Brand Lab staff visited the school cafeterias during lunchtime in Clinton and Franklin counties to assess food service. In Schenectady, local staff negotiated with school administrators on the feasibility of introducing practices to increase activity levels.

4. Identify potential solutions and predictions

The teams focusing on healthy school lunch items were offered options to increase sales of healthy foods such as:

- Place fruits in attractive bowls
- Use catchy slogans such as 'Fruit free with lunch.'
- Make skim milk the default choice by putting skim milk in the front of the cooler and placing chocolate milk in the back.

The team focusing on improving physical activity developed the schedule, designed the exercise space and the activity stations.

5. Identify measures and data collection processes

The school cafeterias collected sales data from cash registers, production records, inventory and NutriKids®, a food management system. The student participation numbers and activity minutes were collected by local program staff.

Do

Test the potential solutions for improvement

6. Test the potential solutions

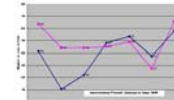
For three months, the teams tested the options to increase sales of healthy foods, and tracked the data for analysis.

Study

Use data to study results

7. Study the results

The Clinton team found that sales of fresh fruits increased.



The Franklin team did not find any difference in sales of skim and chocolate milk.

The Schenectady team found an 18-minute increase in fourth-graders' physical activity levels.

Act

Standardize the improvement and establish future plans

8. Adapt the improvement strategy or Standardize the improvement

Overall, the teams learned that it is feasible to use the improvement

framework in a school setting. Some of the strategies implemented were placement of fresh fruit in attractive bowls, and these had to be saran-wrapped as per health department regulations, and improved placement and content of signage (e.g. signs saying "fruit free with lunch").

Among the process lessons learned:

- Allow sufficient time for training and data collection. For example, with schools, training would need to occur in the spring for a fall or winter implementation.
- Test-run collection of data procedures for ease of use, and validity before implementation.

9. Establish Future Plans

- The Clinton team continues to test strategies to improve sales of healthy foods.
- The Franklin team continues to refine implementation.
- The Schenectady team was asked by the school to redesign the program for incorporation into the regular classroom.
- The NYSDOH is developing a statewide technical assistance plan to adapt evidence-based and best practice interventions for local use. The Model for Improvement is among the methodologies that would be included into the training.