

The Montana Office of Public Instruction
School Nutrition Programs

Pilot Project Report



A Recess Before Lunch Policy in Four Montana Schools
April 2002-May 2003



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Pilot Project Report: A Recess Before Lunch Policy in Four Montana Schools

Purpose

In order to promote healthy eating, while improving the atmosphere of school meals, the Montana Team Nutrition Program has been working with four schools to evaluate implementation of a Recess Before Lunch (RBL) policy. This pilot project was developed to evaluate the following components of Recess Before Lunch policy implementation in Montana schools:

1. Determine if there is an improvement in food and beverage waste, and
2. Acceptance and effectiveness of the policy, based on principal, educators, food service, and student feedback.

Methodologies

Four Montana Schools served as pilot schools for the Recess Before Lunch policy. The pilot project started in the spring of 2002 and was completed in May 2003. The four schools that participated were:

1. A K-2 school in central Montana with an enrollment of 204 students.
2. A K-2 school in northern Montana with an enrollment of 102 students.
3. A K-8 school in northern Montana with an enrollment of 132 students.
4. A 5-8th middle school in western Montana with an enrollment of 674 students.

Study Design

The study consisted of 3 phases. Each phase consisted of a plate waste study, a focus group to gather student feedback, and a survey of staff (administrators, teachers, and food service staff) comments regarding the RBL policy.

Phase 1: conducted in Spring 2002, prior to the school implementing a RBL policy.

Phase 2: conducted in Fall 2002, after the initial implementation of the RBL policy.

Phase 3: conducted in Spring 2003, after the RBL policy in use for one year.

Plate waste studies

The menu and portion size was consistent within each school throughout the 3 plate waste studies. Total food and beverage waste collected included waste from hot lunch program trays, foods/beverages purchased through other school avenues (vending/snack bar) and lunches (food and beverages) brought from home. The total amount of food and beverage waste was measured in pounds and ounces, respectively. Amount of waste per student was calculated by dividing total waste by the total daily attendance. Keeping the plate waste studies unannounced to students and staff minimized interfering factors.

Focus groups

A standard focus group questionnaire (Attachment A) and similar procedure was used for all 3 phases. Each group (per phase) consisted of 10-12 randomly selected students. The questions were developed to gather information regarding the timing of mealtime and recess, menu preferences, and overall opinions of the school food service program.

Administrator, Teacher and Food Service Staff surveys

Surveys were left at each school visit, to be filled out and returned. A similar survey was distributed each time (Attachment B). The survey questions were written to determine general opinion of the RBL policy and the school food service program, any advantages/disadvantages of the RBL policy, and how it is working within each school.

Exception

The northern MT K-8 School had started the RBL policy prior to Phase 1 of the study. Therefore, plate waste studies were not completed at this site. Focus groups and evaluations were collected and comments summarized.

Plate Waste Results

- ★ **The average amount of food waste per student (average total of all three schools) decreased after implementation of the RBL policy.** The biggest decrease was noted in phase 2 (October 2002, first study after the RBL policy was started). Average food waste decreased in phase 3 (May 2003) to a lesser degree. See Figure 1.
- ★ **The average amount of beverage waste per student (average total of all three schools) decreased after implementation of the RBL policy.** The biggest decrease was noted in phase 2 (October 2002, first study after the RBL policy was started). Average beverage waste decreased in phase 3 (May 2003) to a lesser degree. See Figure 2.
- ★ **The beverage waste per student decreased by 67% (phase 2) and then 79% (phase 3) at the northern MT K-2 school.** This school also began offering extra water during lunchtime. They found that the children were thirstier as a result of going to recess before eating lunch especially during warm weather months.
- ★ The small sample size prohibited the completion of formal statistical tests to measure statistical significance. T tests did not show a statistical significance. **The data does appear to show an overall decrease in average food and beverage waste after implementation of a RBL policy.** A larger sample size (more schools) would be beneficial for future studies.

Additional Findings

(based on subjective comments from pilot school staff and students)

- ★ The atmosphere in the lunchroom was more relaxed, quiet, and conducive to eating, as the children were not rushing to get out to the playground. The children have adjusted to being in the lunchroom longer, allowing them more time to eat and visit before returning to class.
- ★ Comments from administrators and teaching staff indicated a dramatic decrease in discipline problems on the playground, in the lunchroom and in the classroom. The principal from the northern MT K-2 school reported in May 2002 they have not had a single lunchroom referral to the office since starting the RBL policy.
- ★ Children return to class more settled, calmer, and ready to learn. Because they have eaten well, they tend to stay focused throughout the afternoon.
- ★ Teachers gain more teaching time before lunch, as they don't have to allow time for hand washing. Teachers also have the option to keep a student in for a few minutes of extra help before the child goes to recess.

- ★ Student focus groups indicated that the children like being able to play first.
- ★ Schools benefit more from their food dollars when students consume the food instead of throwing it away. The food is not being thrown into the garbage; but is fueling students.

Considerations

- ★ A decrease in the number of unopened milk cartons was noted at all schools after implementation of RBL. This indicates that more children are opening their milk and consuming it, rather than leaving it unopened on their trays. This may assist them in meeting their calcium needs for growing bones and also provides a good source of protein.
- ★ Many factors, some of which cannot be accounted for, affect how children eat. The decrease in food and beverage waste per student was the greatest between the first (May 2002) and second (October 2002) phases of the study. The average waste per student was the lowest in October 2002.
- ★ It was noted that it would have been beneficial to separate out milk waste from other beverages, especially in the middle school, where the vast majority of the beverage waste consisted of beverages other than milk, such as sports drinks, soft drinks, juice, etc.
- ★ Participation in the schools' National School Lunch Program indicates how many children eat the traditional hot lunch. A low participation would indicate that the majority of the waste collected is not from the hot lunch line, but from foods purchased at the snack bar and/or brought from home. A high participation rate would most likely indicate that the majority of the waste collected is from the hot lunch line. Participation rates for the pilot schools ranged from 18% to 94%.

Conclusion

The positive results in the pilot schools support further implementation of a RBL policy based upon decreased plate waste, creation of a more relaxed eating environment, and improved student behavior. This policy helped to decrease the amount of food and beverage waste per student per day. **The average amount of food and beverage waste per student (average total of three schools) decreased after implementation of the recess before lunch policy.** Of equal importance, is the **improvement in the mealtime atmosphere**, which allows students the time and opportunity to relax and enjoy their meals, without rushing to get outside, and the **improvement in students' behavior**. Administrators and teachers indicated that the students' behavior improved and that the students are more able to focus on learning as a result of the recess before lunch policy. Teachers have benefited from more uninterrupted teaching time. Enhanced nutrition and improved behavior go hand in hand. This policy offers an opportunity for students to achieve both.

Future Direction

The state agency will be sharing this information with school administrators, school staff and community members to educate them on the benefits of a Recess Before Lunch policy in helping to enhance the cafeteria atmosphere and decrease food waste in lunch programs. Information will be published in a Recess Before Lunch Implementation Guide to assist school staff when considering this policy and to aid with implementation steps. The state agency will also be monitoring the number of Montana schools implementing this policy in the future along with the acceptance level from staff and students and the impact upon the lunch program.

For more information contact

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Description of Attachments*

Attachment A: Focus Group Questionnaires

Focus Group questionnaires were designed for two age levels, 2nd graders (used in the K-2 schools) and 3rd-8th graders (used in the K-8 and middle schools). The questionnaires were adapted for each phase of the study

Phase 1: Spring 2002, Recess After Lunch (before implementation of Recess Before Lunch policy)

Phase 2: Fall 2002, after initial implementation of the Recess Before Lunch policy

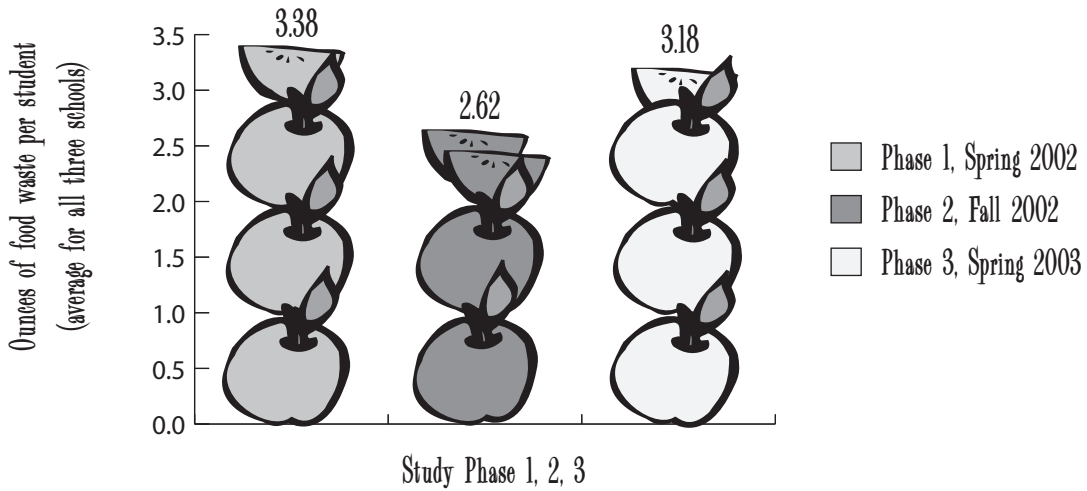
Phase 3: Spring 2003, Recess Before Lunch policy in place

Attachment B: Teacher and Food Service Staff Surveys

Teacher and food service staff surveys were designed to collect feedback both prior to Recess Before Lunch policy implementation (phase 1) and then after Recess Before Lunch policy implementation (phases 2 and 3.)

***Please contact the Montana Team Nutrition Program if you would like to receive a copy of the referenced attachments.** The attachments are also available on the Montana Office of Public Instruction School Nutrition Programs Web site www.opi.state.mt.us/schoolfood/index.html.

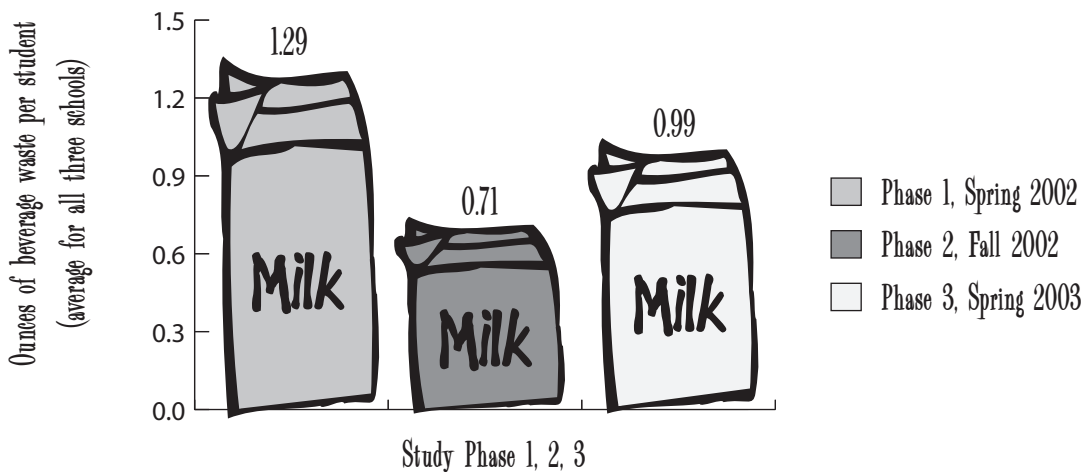
Figure 1: Average food waste per student decreases



Implications: This study demonstrates the decrease in food waste per student as a result of implementing a Recess Before Lunch policy.

Source: Montana Office of Public Instruction School Nutrition Programs Recess Before Lunch Pilot Study, data from 3 Montana schools, April 2002-May 2003.

Figure 2: Average beverage waste per student decreases



Implications: This study demonstrates the decrease in beverage waste per student as a result of implementing a Recess Before Lunch policy.

Source: Montana Office of Public Instruction School Nutrition Programs Recess Before Lunch Pilot Study, data from 3 Montana schools, April 2002-May 2003.