

I. Transmittal Letter

October 30, 2012

Federal Government Agency
Brand New Research Initiative
Proposal Services Unit
Room 000 Canal Place
000 Main Street, N.W.
Washington, DC 00000

Dear Sir or Madam,

My colleagues and I are pleased to submit the enclosed proposal, *Eat Breakfast*, in response to the United States Department of Agriculture's School Breakfast Program's call for proposals. The proposal requests \$5,000 for the opportunity to conduct our project for three years. Enclosed please find the original 5 copies of this proposal, as specified in the Request for Proposals.

If you have questions or need additional information, please contact us. I am looking forward to your reply.

Sincerely,

McKenzie Driscoll,
BYU Dietetics Students
Brigham Young University
Provo, UT 84602
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II. Title Page

Project Title: Eat Breakfast

Grant Program: USDA School Breakfast Program

Proposed Start Date: November 1, 2012

Proposed End Date: November 1, 2013

Funds Requested: \$3,300

Project Director:

McKenzie Driscoll

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Kelly Neilson

Brittney Scott

Juliette Soelberg

The award should be made to:

Molina Healthcare

Authorized Organizational Representative:

Mary Ann White

Territory Manager

Molina Healthcare

7050 Union Park Avenue

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III. Abstract

In our local school district, nurses and staff have expressed concern about the lack of energy among middle school aged students. Staff members of schools have observed that 7th and 8th grade students struggle concentrating in class and are underperforming on tests. Research has shown that students who eat breakfast focus better in school and improve on test scores. Our program will teach students in a classroom setting and emphasize the importance of breakfast. As an illustration, basketballs will be used to represent the energy one lacks when breakfast is insufficient. An empty basketball represents when no breakfast is eaten, a semi-inflated basketball represents when an inadequate breakfast is eaten, and a fully inflated basketball represents when a healthy or balanced breakfast is eaten. After the illustration, students will be encouraged to examine common barriers to eating breakfast. Solutions to these barriers will be addressed as topics are discussed. An activity will be administered to help students incorporate principles from *ChooseMyPlate* into breakfast choices. From this activity, students will learn how to assemble a healthy breakfast that includes at least three food groups and meets individual preferences and needs. Student volunteers will participate in the activity and choose from various food items displayed to create an applicable balanced breakfast. By raising awareness through education, the immediate concerns for students will be addressed and long-term habits will be established. This presentation will be performed a total of 10 times at various middle schools for a total of three years. The total funding amount requested is \$5,000.

IV. Grant Narrative

Needs Statement

The Academy of Nutrition and Dietetics estimates that “between 42% and 59% of American children do not eat breakfast every day”¹. *Eat Breakfast*, a program sponsored by Molina Healthcare in the state of Utah, hopes to improve the health and academic success of middle school students by teaching them the importance of eating breakfast. It is important to administer this education to 7th-8th grade students in order to prevent unhealthy habits from forming, such as skipping breakfast or eating a high-calorie, high-fat breakfast. As children are increasing their diet with high-calorie and high-fat breakfast foods, the rate of obesity in children increases.

The *Healthy People 2020* National Health Objective that we consider the most important for our proposed project is the one that aims to “reduce the proportion of adolescents aged 12 to 19 years who are considered obese.” Recent statistics from NHANES show 18% of adolescents were considered obese in the years 2005 through 2008². With the increasing rates of obesity, it is critical to focus on preventative education. Studies have shown that adolescents that regularly eat breakfast are at a lower risk for obesity than those who skip breakfast³. These eating habits, over a long period of time, can lead to an unhealthy body weight and eventually obesity. Eating breakfast will minimize the likelihood of eating higher calorie foods throughout the day. Our breakfast program will encourage adolescents to eat breakfast, which will help establish a foundation for a healthy lifestyle, ultimately producing a healthier population.

Breakfast is the most important meal of the day because it is the first meal after the longest stretch of time without food. Many American children are consuming breakfast cereal that are high in energy and sugar⁴; unfortunately, these foods spike blood sugar levels⁵. The body responds to the surge of sugar by releasing high levels of insulin. This quick lowering of blood sugar levels causes hunger and lack of energy just a few hours after eating⁶. Thus in order to suppress hunger for a longer period of time, it is important to choose nutrient-dense foods that result in satiety. The purpose of our project is to teach children about better options for breakfast in order to perform better in class and to have long-lasting healthy habits. Current research shows that those who eat breakfast are leaner and have a decreased risk of becoming obese compared to those who skip breakfast⁷. If children develop the practice of eating breakfast, then the great concern of childhood obesity may decrease.

Obesity is not the only issue that breakfast can combat. Melissa Joy Dobbins, MS, RD, and a spokesperson for the *Academy of Nutrition and Dietetics* states, “Some kids go as long as 15 hours—or more—without food”⁸. By not eating breakfast, our bodies are forced to maintain a continuous fasting state that is not conducive for success in school. Research has shown that eating breakfast increases performance in school, particularly memory tests and verbal fluency⁹. It has also been repeatedly shown in many studies, and is now considered common knowledge among healthcare professionals, that concentration in school is improved when students eat before coming to class.

Based on the research above we recognize the severity of the health and academic implications that arise when breakfast is not a priority. Through our proposed project, we will educate Utah middle school students on the importance of eating breakfast and how it will contribute to a more enriching life. *Eat Breakfast* is anticipated to be a repeatable, effective program that will benefit Utah students now and in the future. It is projected that short term outcomes of *Eat Breakfast* will result in noticeable improvements in performance at school, with the potential of long-term benefits in preventing obesity.

Goals

- To promote the importance of breakfast to middle school students
- To educate students about the benefits of breakfast and how to assemble breakfast meals according to their dietary needs and preferences
- To encourage students to make a lifestyle change so that eating breakfast becomes a habit, which will improve academic and personal performance

Process Objectives

- Develop classroom lesson
- Verbal pre & post assessment
- Administer breakfast education
- Distribute Molina sponsored handouts

Short/Medium Term Impact Objectives

- 80% of class participants will be able to identify at least 2 benefits of eating breakfast by the end of the lesson
- 80% of class participants will be able to identify one barrier to eating breakfast and its solution by the end of the lesson
- 80% of class participants will be able to assemble a healthy breakfast that includes 3 food groups by the end of the lesson

Long Term Outcome Objectives

- By the end of the school year, 50% of class participants who previously did not eat breakfast regularly, will eat a healthy breakfast 3 times a week
- By the end of the school year, class participants will see a 5% increase in their academic scores in correlation to their regular breakfast consumption

Project Description and Methodology

Project Design. This project is based on a formal lesson plan that provides nutrition education to 6th- 8th grade students at Vista Heights Middle School in Saratoga Springs, Utah. We decided to utilize the school environment for our project location because it provides us with a guaranteed audience, as opposed to doing a community event where people may not show up.

Nutrition Education Lesson. The developed lesson plan focuses on the importance of breakfast. It contains games, illustrations, and group activities that will help educate the students about the importance of eating breakfast.

To introduce our lesson, students will participate in a consensogram. This is an interactive way to grab the student's attention and assess their interest in breakfast. We will ask the students to respond to the following statements: (1) "I eat breakfast" with the options of "always, sometimes, or never", (2) "Breakfast is..." with the options "really important, somewhat important, and not important", (3) "I like breakfast food" with the options of "all, some, or none". By starting out with this activity, we will capture the student's attention for the rest of the lesson. The lesson focuses on the importance of breakfast, common reasons students skip breakfast, and learning how to assemble your own healthy breakfast. When explaining the importance of breakfast, we will use a creative simulation using 3 basketballs. The first basketball will be completely deflated and represent a student who didn't eat breakfast and, therefore, has no energy. The second basketball will be semi-inflated and represent a student that ate a low quality breakfast, such as a pop tart. The third basketball will be fully inflated and represent someone who ate a balanced, nutrient rich breakfast. Having these three basketballs next to each other, and attempting to dribble them, it will be obvious that the fully inflated basketball will be the most capable.

Next, we will discuss common reasons students skip breakfast and write them up on a poster. If students do not have any answers, we will write the most common reasons that have been evidenced through peer-reviewed, scientific research studies, such as not having any time for breakfast or not liking breakfast foods. After gathering their answers, we will discuss solutions to their specific barriers. We will then teach them the components of a healthy breakfast, specifically the importance of including three food groups. To solidify this concept, students will volunteer to assemble a healthy breakfast using food items that we will purchase from the grocery store. These foods are representative of each food group and include fresh produce, milk, juice, yogurt, eggs, peanut butter, English muffins, tortillas, and packages of granola bars, waffles, and cereal. This activity will involve the students, and it will help connect the education we are giving them to their personal lives. We will ask another student to come and assemble a different breakfast that involves specific restrictions, such as lactose intolerance or if they did not like breakfast foods. This will help the students see that it is possible to eat a healthy breakfast every morning that corresponds to their personal circumstances and needs.

To conclude, we will ask questions to assess learning. A brochure of breakfast ideas and simple recipes will be handed out as the students leave for them to implement at home.

[EAT BREAKFAST] LESSON PLAN

MCKENZIE DRISCOLL, JULIETTE SOELBERG, BRITTNEY SCOTT, KELLY NEILSON

Target Audience: Students at a Utah County Middle School		Community Agency: Molina	
Terminal Objective By the end of the classroom lesson, middle school students will be able to recognize the benefits of eating breakfast before they come to school and identify 3 breakfast meals they can make.		Terminal Concept Eating breakfast is a healthy practice that helps students focus and feel better throughout the day.	
References EatRight.org			
Preparation: Posters (10), markers, 3 basketballs (deflated, semi-inflated, fully inflated), 20 breakfast food items (4 items from each food group), Molina breakfast brochure			
Pre-assessment After speaking with a school counselor she informed us that middle school students are especially prone to skipping breakfast. She said they come to school and feel lethargic, tired, and can't concentrate and don't know why. Middle school students need to be taught the importance of breakfast and encouraged to begin making it a part of their morning routine.		Introduction Consensogram: a way to assess prior attitude or knowledge before beginning a subject discussion. The survey statements will be written on the posters We will ask the students to respond to the following statements: (1) "I eat breakfast" with the options of "always, sometimes, or never", (2) "Breakfast is..." with the options "really important, somewhat important, and not important", (3) "I like breakfast food" with the options of "all, some, or none"	
Supporting Objectives	Content Outline	Time	Learning Experiences
Students will be able to describe the importance of eating breakfast	Pretend these three balls represent middle school students. -deflated ball represents student who didn't eat breakfast -semi inflated ball represents a student that ate a low quality (ex. Sugar cereal, pop	10 min	Basketball illustration: show deflated, semi-inflated, and fully-inflated balls. Have three students try to bounce the balls. Ask: What did you learn from this activity? (or something to assess if they made the connection between eating high quality breakfast and ball working to its best capacity).

<p>assemble a healthy breakfast that includes at least 3 food groups and meets their individual preferences and needs</p>	<ul style="list-style-type: none"> • Protein • Grain • Dairy • Fruit • Vegetable <p>Possible food items in each food group: Dairy: milk, yogurt, cheese Protein Foods: eggs, bacon, sausage Vegetables: peppers, olives, salsa, spinach, tomato Fruit: bananas, oranges, apples, canned fruit (peaches, cocktail, pineapple, etc) Grains: toast, cereal, oatmeal, bran, bagel, English muffin, granola bar</p> <p>For this next activity, we are going to have someone put together a healthy breakfast on this plate, including at least 3 food groups.</p> <p>Even if you don't like a certain breakfast food, you can still eat a healthy breakfast using other foods you like</p>	<p>student to answer. List responses on board.</p> <p>Ask: What are food items in each food group that could be eaten at breakfast?</p> <p>Show students the empty plate. Ask: Who wants to come up to the front and put together a healthy breakfast? Students will choose from food laid out on the table and put at least 3 food groups on their plate.</p> <p>Is there anyone who doesn't like certain breakfast foods? What foods do you not like? Can you come up and assemble a breakfast that does not use those foods?</p>
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Assessment

After this class, how many of you think that it is possible for you to eat a healthy breakfast before you come to school? (estimate % of students with hands in air or count) Can one person tell me one of the benefits of eating breakfast? (continue asking until students have named all the benefits)

Closure: Pass out handout and answer questions from the students. Handout breakfast ideas brochure.

Your Goal: As often and best you can – eat breakfast every day!

Gaant Timeline Chart

2012							
Project Tasks	AUG.	SEP.	OCT.	NOV.	DEC	DATE COMPLETED	
Email Mary Ann before we meet		X				9-Sep-12	
Meeting with Molina (Mary Ann)			X			13-Sep-12	
Schedule a middle school			X			19-Nov-12	
Email Content for the handout to Molina			X			29-Oct-12	
Print Choose My Plate Poster (Molina)			X			26-Oct-12	
Collect non-perishable food items				X		20-Nov-12	
Purchase perishable food				X		27-Nov-12	
Perform classroom presentation				X		27-Nov-12	
Evaluate classroom presentation				X		4-Dec-12	
Present to community nutrition class					X	4-Dec-12	
Peer Evaluations					X	6-Dec-12	

Evaluation Plan

Formative Evaluation

We decided to gather information about our target population to assess the greatest nutritional needs. We expected that local school nurses and guidance counselors would be the most informed on the current issues. There were several responses, but the one that stood out to us the most was from a middle school nurse that informed about a problem with breakfast. She told us that students are not making breakfast a priority and will come to school on empty stomachs, which causes them to struggle concentrating in school.

Process Evaluation

We plan to use a consensogram as a pre-assessment tool to evaluate their current thoughts about breakfast. We will assess three different statements: (1) I eat breakfast (with the options “always, sometimes, never”) (2) Breakfast is (with the options “really important, somewhat important, not important”) (3) I like breakfast foods (with the options “all, some, none”). We will discuss the results with the class. We will test the students’ ability to put together a healthy breakfast that includes at least three different food groups. We will have volunteers assemble a healthy breakfast using our food items.

Impact Evaluation

We will ask the class to name at least two of the benefits of eating breakfast that we identified in the lesson. We will then ask the class to come up with common barriers to eating breakfast and then identify possible solutions. After the students assemble their breakfast combinations, we will ensure that each food item comes from a different food group. The overall evaluation of our project will involve a survey. We will email our school contact and ask her to administer the survey to the class participants at the end of the school year. We will ask the following questions: Before the breakfast presentation did you eat breakfast every day? Over the past school year, did you consistently eat a healthy breakfast at least three times a week? We will also ask the school contact for information about their academic performance for the first and second semesters. We will then compare their grades to see if there is at least a 5% increase among the students that eat breakfast regularly.

Logic Model: [Eat Breakfast]

Goal(s): To promote the importance of breakfast to middle school students. To educate students about the benefits of breakfast and how to assemble breakfast meals according to their dietary needs and preferences. To encourage students to make a lifestyle change so that eating breakfast becomes a habit, which will improve academic and personal performance.

<p style="text-align: center;">Inputs</p> <p>Volunteers Donations Time Molina Healthcare Public School Materials (food displays, basketballs, chart paper, handouts, MyPlate poster) Research (evidence on the benefits of breakfast for students)</p>	<p style="text-align: center;">Outputs (Implementation/Process Obj.)</p> <p>Activities</p> <ol style="list-style-type: none"> 1. Develop classroom lesson 2. Verbal pre & post assessment 3. Administer breakfast education 4. Distribute Molina sponsored handouts <p>Participants:</p> <ul style="list-style-type: none"> • 7th and 8th grade students • Teachers • Parents (via their children) 	<p style="text-align: center;">Impact – Outcome</p> <p>Short/Medium-Term Objectives</p> <ul style="list-style-type: none"> • 80% of class participants will be able to identify at least 2 benefits of eating breakfast by the end of the lesson • 80% of class participants will be able to identify one barrier to eating breakfast and its solution by the end of the lesson • 80% of class participants will be able to assemble a healthy breakfast that includes 3 food groups by the end of the lesson <p>Long-term Objectives</p> <ul style="list-style-type: none"> • By the end of the school year, 50% of class participants who previously did not eat breakfast regularly, will eat a healthy breakfast 3 times a week • By the end of the school year, class participants will see a 5% increase in their academic scores in correlation to their regular breakfast consumption
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Assumptions: Middle school students are skipping breakfast. This causes them feel lethargic, tired, and unable concentrate. If students are aware of the benefits of breakfast, they will be more inclined to make it a priority. If students eat breakfast, then they will perform and feel better at school.

External Factors: Economic standing of the audience, maturity levels of students, new laws about the School Breakfast programs, future budget changes within Molina Healthcare

Evaluation Plan

- *Formative:* Consulted with local school nurses and guidance counselors about the current nutritional needs in our target population.
- *Process:* (Obj.1) Dr. Richards will review content of lesson to ensure its validity. (Obj.2) Observe results of consensogram based on participation and observe results of verbal assessment. (Obj.3) Provide opportunity for students to practice assembling a healthy breakfast including three food groups using the provided food options. (Obj.4) Observe students reactions to the handout provided.
- *Impact/Outcome:*
 - Short/Medium Term: Evaluate by asking questions and recording verbal responses. Verify that assembled meals include 3 food groups.
 - Long Term: At the end of the school year, administer a survey to class participants. At the end of the year, compare class participants' grades from first semester to second semester.

Sustainability Section

We designed our project to be a reusable classroom presentation that can be repeated by any Molina volunteer or employee. Molina has a binder of all the materials from previous projects, and we are contributing our project to their binder to have as a resource for their future use. As part of our project, we are making colorful and informative flyers that we will be passing out at the end of the lesson. The children will be able to take this home and have a summary of the lesson to share with their friends and family.

Budget

FIRST PRESENTATION

Direct Costs

A. Salaries and Wages	None; volunteer
B. Fringe Benefits	None; volunteer
C. Total Salaries, Wages, and Fringe Benefits	None; volunteer
D. Equipment	None
E. Materials and Supplies	
Display food	\$60
Molina sponsored handouts (water bottles, hand sanitizer, etc.)	\$50
Choose My Plate Poster	\$30
Colored Brochure	\$20
Basketballs (3)	\$40
Chart/Poster Paper	\$20
Markers	\$15
Easel	\$20
Tape	\$5
F. Travel	IRS Reimbursement
Gas	rate for mileage: \$0.555/mile (45 miles*0.555) = \$25
H. Total Direct Costs (items C-G)	\$285

INDIRECT COSTS (20% of all direct costs) \$57

Total Costs (for first presentation) \$342

For each additional presentation:

- \$30 Perishable food
- \$50 Molina sponsored handouts
- \$20 Colored brochure
- \$20 Chart/Poster Paper
- \$15 Markers
- \$25 Gas for Travel

Total: \$160

First year projected costs (10 presentations): \$342 (original presentation) + \$160*9 \$1,782

Second year (10 presentations): \$160*10 \$1,600

Third year (10 presentations): \$160*10 \$1,600

Total costs for 3 years \$4,982

Budget Narrative

DIRECT COSTS (first presentation)

- A. **Salaries and Wages:** None because these will be volunteers carrying out this project and will be giving freely of their time.
- B. **Fringe Benefits:** This is volunteer work so there will be no fringe benefits.
- C. **Total Salaries, Wages, and Fringe Benefits:** \$0 (Salaries and Wages) + \$0 (Fringe Benefits) = \$0
- D. **Equipment:** None; equipment will not be necessary. Volunteers already have their own laptops with necessary software installed.
- E. **Materials and Supplies**
 - 1. **Display Food:** We will need to buy food to have on display for the students to use when creating their own breakfast idea. This will also help the students visualize all the different products that can work great for breakfast meals. We will buy perishable and non-perishable items. The perishable items will be things such as bananas or milk. The non-perishable items will be things such as cereal or oatmeal containers that will represent the food, but can also be kept and re-used for following lessons. Estimated 20-25 items of perishable/nonperishable grocery items = \$60
 - 2. **Molina Sponsored Handouts:** We will be handing out incentives for participation in the form of water bottles and hand sanitizers. = \$50
 - 3. **Choose My Plate Poster:** We will be using "Choose My Plate" as a resource in our lesson. Teaching the students about how they can incorporate 3 different food groups into their breakfast will be a main point of our lesson. Printing a 2x3 ft. Choose My Plate Poster @ \$5/square ft. = \$30
 - 4. **Colored Handouts:** We will create simple handouts that have breakfast ideas and simple recipes. Having them printed in color will make the handouts more appealing to the students. Estimated 35 students x \$0.57/colored handout = \$20
 - 5. **Basketballs (3):** We need to buy new basketballs to effectively carry out our example. New basketballs often do not have air in them yet, so we can pump each basketball up the needed amount. Wal-Mart basketballs \$10 x 3 basketballs = \$30
 - 6. **Chart/Poster Paper:** Instead of writing on the board in the classroom, we want to write on big poster paper that we can tear off and tape on the walls of the classroom. Using this paper will be different from what they are used to (teacher writing on the white board). Chart/Poster paper= \$20
 - 7. **Markers:** Instead of using black marker, we want to buy colorful markers that will attract the students to what we are writing. Color will make the material look for interesting as well. Markers = \$15
 - 8. **Easel:** When writing on the Chart/Poster paper, we need an easel to prop it up on. An easel is a very functional item that can be used over again in different lesson plans. Easel = \$20
 - 9. **Tape:** After we write on our Chart/Poster paper, we want to tape it up on the walls of the classroom. Tape = \$5
- F. **Travel**
 - 1. **Gas:** Mileage to future meetings as well as the location of the school where we conduct our project. Estimate travel expenses = \$25
- G. **All Other Direct Costs:** None
- H. **Total Direct Costs:** items C through G above equal to \$285

INDIRECT COSTS

Indirect costs equal \$57 (20% of all direct costs)

TOTAL COST

Total Direct and Indirect costs equal \$342 ($\$285 + \57)

References

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<http://www.eatright.org/kids/article.aspx?id=6442465314&term=breakfast>. Accessed November 1, 2012.
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