Casey smiled as he read through the animated comments on the forms. The tasting panel comments included: “Yuck—I would never drink this,” “It’s like heaven in a cup,” and “Absolutely delicious. I would drink this every day if I could.”

His kitchen team at Sensational Manor had just conducted their first make-versus-buy Quality Assessment & Performance Improvement (QAPI) project. As Casey reviewed the numbers, he couldn’t believe that he had been wasting so much of his budget on this one area. The numbers and comments gave him a clear answer on what his plan needs to be. He rolled up his sleeves and got to work, saving hundreds of dollars each month on this one simple change.

Are you curious about what Casey’s team was testing? Exactly what was his conclusion and how was it going to save him so much money? We will follow up with Casey at the end of this article.

For improved nutrition quality and saving on the bottom line, there is a push for a food-first approach in nutrition care. However, you may not have the staffing to implement the program at this time. Up to 30 percent of your clients’ nutrition may be coming from between-meal snacks/nourishments and supplements, which impacts your food and labor budget. You can improve both nutrition quality and your bottom line with smart decisions on your snack and supplement menu.

**Key Nutrients in Snacks and Supplements**

In long-term and acute care, supplements are ordered by healthcare providers for weight gain, wound/skin healing, or disease-specific nutrition therapy supplementation. The benefit of using commercial supplements is consistency in nutritional value and product quality. Some nutrition departments have the commercial supplements as a line item in their budget, while other facilities house them under nursing or pharmacy.

In all areas of food service, between-meal snacks, or nourishments, can provide additional micro and macronutrients as part of a client’s whole nutrition plan. Due to variable intakes at meals, the snacks may be necessary for proper nutritional health.

A special note on long-term care (LTC): the HS, or “hour of sleep” snack offering assists in meeting the CMS regulation that you may not have more than 14 hours between meals in LTC. If a nourishing snack is provided at bedtime, you may extend the time lapse to 16 hours. The definition of a nourishing snack is ‘a verbal offering of single items or
in combination from the basic food groups.’ Remember to check your individual state’s regulations regarding what snacks must be offered at bedtime.

In education, corrections, catering, or community foodservice operations, between-meal snacks may be used in conjunction with educational workshops, activities, or special events.

Key nutrients in snacks might include protein, iron, vitamin C, and fluid.

To optimize protein utilization, protein intake should be spread out. Most research finds that the human adult body can absorb 25-30 grams of protein at a time. Another way to look at this is the maximum rate that a readily-absorbable protein (like whey or egg) can absorb is about 8-10 grams per hour. For example, if a person’s protein intake goal is 75 grams daily, they should spread this out between 3-4 meals. If your meal offers 3 oz of protein, 8 oz of milk, 2 oz of grains, 1 fruit and 1 vegetable, the meal will have 30-36 grams of protein. Some of this protein might be “wasted” and the person would benefit from a snack that offers 8-10 grams of protein between meals for optimum protein absorption.

Iron is a picky nutrient for absorption. It is best absorbed with a Vitamin C source, but doesn’t absorb well with calcium products, eggs, coffee, tea, and certain medications. Thus, offering a high iron snack along with Vitamin C is better than offering high iron foods with a meal. Using a food-first approach to iron is helpful, as high-iron foods are less constipating than oral iron supplementation.

Vitamin C, like most water-soluble vitamins, will be excreted if it is not utilized in the body. Iron likes at least 80 mg of Vitamin C for optimal absorption.
absorption. For reference, 1 cup of strawberries has 90 mg, 1 medium kiwi has 161 mg, and 1 orange has 70 mg. Offering snacks with iron and Vitamin C, like an iron-fortified cereal bar with sliced oranges or strawberries with power bites (see recipe provided), will be sure winners!

Regarding fluids, many clients are not drinking adequate amounts between meals, despite being offered them. If their fluids are served as the snack or supplement, or alongside of it, they have an opportunity to increase their fluid intake by 25 percent with just one snack daily.

**Financial Considerations for Snacks and Supplements**

Individually-wrapped commercial snack items are easy to store and deliver to clients, but they may be more costly for your department. In-house prepared nourishments can be labor intensive. Which is the best product for your operation? Enter a make-versus-buy QAPI project!

When was the last time you conducted a make-versus-buy study for one particular area of your foodservice operation?

In your operation, it is critical to compare your actual spending versus your budget and account for any variances. Switching to a food-first approach to your snacks and supplements may improve your bottom line. It is definitely worth the time and energy to find out! There are sample charts provided to conduct the make-versus-buy QAPI in your department.

According to 2022 ANFP benchmarking for skilled nursing facilities data, 78 percent of CDM, CFPPs order their supplements online, and the median national supplement cost per resident per day was $0.55. The median national food cost per resident day is $7.40. Watch for the 2023 ANFP benchmarking data later this year.

Now that you have considered your department’s make-versus-buy cost savings and taste, let’s circle back to Casey and what his decision might have been.

**The Case for Made-In-House Snacks and Supplements**

As Casey reviewed the numbers, he couldn’t believe that he had been wasting so much money buying convenience items that his clients didn’t enjoy. He is proud of his staffing numbers and low turnover rate. His current staff is well-cross-trained and can cover all positions. His QAPI project results showed that he can save $240 per month or

---

**Chocolate Cranberry No-Bake Energy Bites**

**Prep time: 30 min. | Servings: 75**

**Ingredients**
- 1 cup crushed nuts
- 6 cups rolled oats
- 1 cup chocolate chips
- 1 cup dried cranberries
- 3 tsp. cinnamon
- 2 cups peanut butter
- 3 tsp vanilla extract
- 1/2 cup honey

**Directions**
1. In a large mixing bowl, add the rolled oats, chocolate chips, dried cranberries, nuts, and cinnamon. Mix to combine.
2. Add the peanut butter and vanilla. Stir again.
3. Gradually add the honey, mixing with a spoon between pours. Note: If batter is too sticky, add a few tablespoons of flour or protein powder and mix.
4. Chill batter in the cooler for 20 minutes.
5. Roll into 1 to 1-1/2” balls and place on a cookie tray lined with parchment paper.
6. Serve immediately or place in the freezer for 20-30 minutes, then transfer to storage containers.

**Nutrition**
- Serving Size: 1 energy bite
- Calories: 80
- Protein: 10 grams
Ingredients

- 8 cups 2% milk
- 1/2 cup protein powder, vanilla flavor
- 2 cups ice
- 2 frozen bananas or 2 cups frozen fruit

Directions

1. Add ingredients to blender (liquid first).
2. Blend until smooth.
3. Add water if mixture is too thick.

Depending on the size of your beverage blender, you may need to 1/2 the recipe.

Nutrition

| Serving Size: 8 oz. | Calories: 220 | Protein: 15 grams |

ALTERNATE ENDING: THE CASE FOR BUYING SUPPLEMENTS

As Casey reviewed the numbers, he couldn’t believe that he had been wasting all of his labor on making daily snacks and nourishments when the convenience options were just as good. After all, he barely has enough staff to prepare the meals, much less prepare snacks/nourishments. In this situation, he has more money than available labor hours, making his decision to buy them an easy one. In the future, he hopes to improve his staffing numbers and he will reevaluate.

Reminders With a Convenience and Commercial Product Menu

Offer Variety

If your QAPI results indicate you should stick with convenience and commercial products, continue to offer a variety of options.

Collaborate

Work with your vendor reps, registered dietitian nutritionist, and culinary team to create a variety of nutritious snacks/nourishments. Each snack should have at least two food groups for a well-rounded plan. “See notes below on performing a taste panel.”

References

Scan QR code to view the list of resources for this article.

$2,880 per year by making snacks/nourishments—enough to buy that new beverage blender!

Tips to Amp Up Your Made-In-House Snacks and Supplements

Cross-Train

Call-ins happen, so make sure that most staff are trained to prepare your snack/nourishment menu.

Communicate

If providers are aware of your robust and nutritious options, they will be more likely to order their client’s/patient’s supplemental nutrition in the form of “food-first.”

Collaborate

Work with your vendor representatives, registered dietitian nutritionist, and culinary team to create a variety of nutritious snacks/nourishments. Each snack should have at least two food groups for a well-rounded plan. “See notes below on performing a taste panel.”
### MAKE-VERSUS-BUY STUDY

**STEP 1a. Calculate Commercial Supplement Use**

Use this step if you plan to compare cost of in-house made supplements versus commercial supplements. How many clients have a supplement order? How many per client per day are ordered?

<table>
<thead>
<tr>
<th>Supplement (name)</th>
<th>A. Total Supplements # of actual supplements you have orders for</th>
<th>B. Cost of Supplement (per each)</th>
<th>C. Total Cost (per day)</th>
<th>D. Total Cost (per month)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of clients X # of supplements per day per client</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>#1</td>
<td>X</td>
<td></td>
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<tr>
<td>#2</td>
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<td>#3</td>
<td>X</td>
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</table>

\[ \text{TOTAL (column D)} \]

*Compare this result to your invoices. Remember to look for variances between actual number of supplement orders and purchased supplements from your invoices. This will alert you to shrinkage due to pilferage, miscommunication, poor adherence to policy, or other reasons.

**STEP 1b. Calculate Convenience Items**

Use this step if you plan to compare cost of in-house made snacks versus commercial convenience items. What is your actual spending on pre-packaged convenient snack items? Review numbers in your online prime vendor account or invoices: what is your actual spending in one month for these items? Remember to include packaged items, whole fruits that you use for between-meal snacks/nourishments, bottled beverages, or other items offered between meals.

<table>
<thead>
<tr>
<th>Item</th>
<th>E. Cost (per each)</th>
<th>F. # Served per day</th>
<th>G. Total Cost (per month)</th>
<th>E X F X 30</th>
</tr>
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<tbody>
<tr>
<td>#1</td>
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\[ \text{TOTAL (column G)} \]

Monthly Actual

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*Compare this result to your invoices. Remember to look for variances between actual number of supplement orders and purchased supplements from your invoices. This will alert you to shrinkage due to pilferage, miscommunication, poor adherence to policy, or other reasons.*
**STEP 1c. Calculate PPD**

Use this if you are comparing in-house made snacks with convenience items.

\[
\text{PPD} = \frac{\text{monthly actual}}{\text{(client days*)}}
\]

*Patient (client) days = # of patients (clients) x 30 days

**STEP 2. Calculate Raw Food Cost of In-House Supplements & Snacks**

Choose one snack recipe to compare cost. Use a facility favorite recipe or one of ours provided.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>H. Per Recipe Cost</th>
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<tbody>
<tr>
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**STEP 3. Add in Labor Cost**

You should include labor hours to make the recipe and each recipe item cost.

Remember one of the most important pieces: taste testing!

<table>
<thead>
<tr>
<th>Snack Item</th>
<th>H + Raw Food Cost (entire recipe)</th>
<th>Labor (to make entire recipe)</th>
<th>(= J) Total Recipe Cost</th>
<th>K. Per Serving Total Cost ((J ÷ # ) of servings per recipe)</th>
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</table>

**STEP 4. Compare Costs**

Compare your answer in column K with PPD for snacks above to begin your analysis.

**STEP 5. Compare Taste**

Everyone loves to participate in a tasting panel; involve clients and staff in this fun exercise. Include at least two convenience items and two in-house made snacks. Give each participant a scoring sheet and remind them not to influence each other’s opinions if they are tasting as a group.

<table>
<thead>
<tr>
<th>Snack Item</th>
<th>Rate the flavor and texture of this item using the question: “I enjoy this snack, and I would like to eat it often.” 1 = completely disagree 2 = disagree 3 = neutral 4 = agree 5 = completely agree</th>
<th>Comments</th>
</tr>
</thead>
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<tr>
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<td>1 2 3 4 5</td>
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</table>
AMP UP YOUR SNACK AND SUPPLEMENT MENU WHILE SAVING ON THE BOTTOM LINE

Evaluate Taste and Waste
It is critical that you do taste testing and monitor waste. Everyone loves to participate in a tasting panel! Remember to involve clients and staff in this fun exercise. Include at least two convenience items and two in-house made snacks. Give each participant a scoring sheet and remind them not to influence each other’s opinions if they are tasting as a group (“Don’t yuck my yum!”).

Look for Value
Take advantage of rebates and direct-ship options to save on the bottom line.

Here’s to a successful snack and supplement amp up in your department, using the make-versus-buy QAPI study. Enjoy! ☺

KRISTIN KLINEFELTER, MS, RDN, LDN | eatsmart@paulbunyan.net
Kristin Klinefelter is a nutrition consultant and educator in Northern Minnesota. She has worked with facilities, community groups, and sports teams to amp up their snack menus for optimal nutrition.

EGG SALAD ROLL-UPS
Prep time: 20 min. | Servings: 50

Ingredients
• 36 hard-boiled large eggs, chopped
• 6 celery ribs, chopped
• 3 large carrots, finely shredded
• 3 small green peppers, finely chopped
• 3 cans (2-1/4 oz. each) sliced ripe olives, drained
• 3 cups mayonnaise
• 3/4 cup milk
• 1.5 Tbsp ground mustard
• 1/2-1 Tbsp salt
• 1/2-1 Tbsp pepper
• 50 tortillas
Optional: 50 lettuce leaves, 50 tomato slices

Directions
1. In a large bowl, combine the first five ingredients. With a stand mixer, combine mayonnaise, milk, mustard, salt and pepper until smooth. Stir into egg mixture. Cover and refrigerate for at least 1 hour.
2. For roll-up, spread 1/3 cup of egg salad in the middle of the tortilla, roll-up and slice in half.
3. Optional: Add a lettuce leaf and/or tomato slice before rolling.

Nutrition
Serving Size: 1 egg salad wrap
Calories: 200
Protein: 8 grams

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This **Level III** article assumes that the reader has a thorough knowledge of the topic and the ability to apply the concepts. The desired outcome is to evaluate application and create continuous quality improvement into best practice.

Reading *Amp Up Your Snack and Supplement Menu While Saving on the Bottom Line* and successfully completing these questions online in the ANFP Marketplace has been approved for 1 hour of continuing education for CDM, CFPPs. To earn 1 CE hour, visit [www.ANFPonline.org/market](http://www.ANFPonline.org/market) and select **Edge CE Articles** within the Publications section. Purchase the article and complete the quiz.

1. Which of the following is an acronym for assessing quality of a process?
   - A. Minimum Data Set (MDS)
   - B. Quality Assessment & Performance Improvement (QAPI)
   - C. Health Department Surprise Visit (HDSV)

2. Who should be involved with taste testing and product development?
   - A. Staff
   - B. Clients
   - C. Both A and B

3. Key nutrients to offer for snacks/nourishments for optimal nutrient absorption are:
   - A. Protein, vitamin C, iron, and fluid
   - B. Vitamin B12 and magnesium
   - C. Fluid only

4. The only way to cut spending is to make snacks and nourishments in-house.
   - A. True
   - B. False

5. Which is a good rule-of-thumb for in-house-made snacks/nourishments?
   - A. Only offer whole fruit
   - B. Stick with the same items daily so clients are not surprised
   - C. Offer snacks that include at least two food groups

6. How might you save money when purchasing commercial and convenience items?
   - A. Take advantage of rebates
   - B. Consider direct-ship delivery
   - C. Both A and B

7. How can you compare your supplement spending with others in the industry?
   - A. Review ANFP Benchmarking reports
   - B. Ask your vendor
   - C. Post a question on social media

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