

Food Trends:

influence on
purchasing decision & health

Melisa Onc
Independent Study – 489
Dr. Rao
28 November 2025



Trend: Lower Sugar in Foods

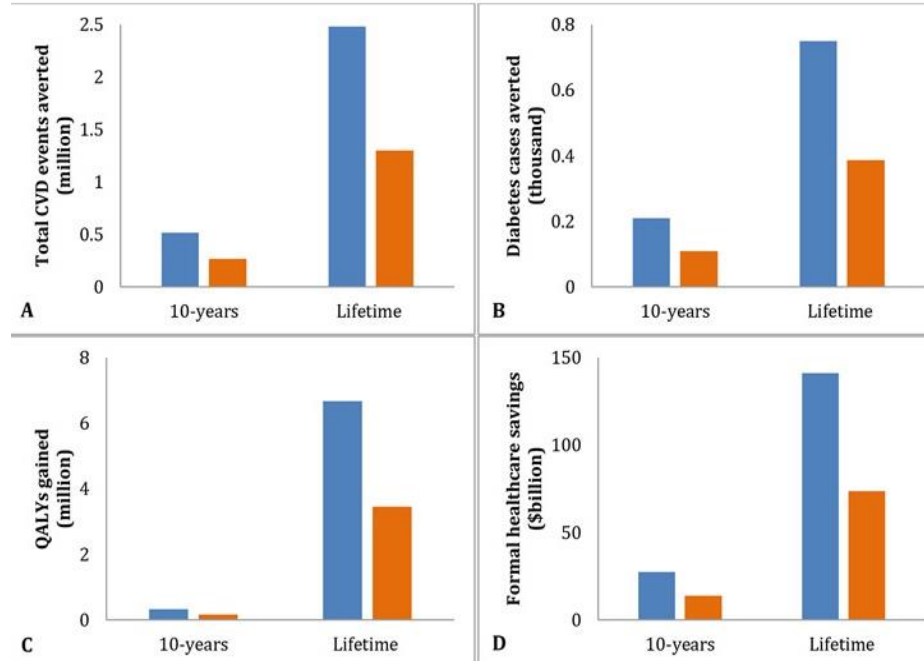


- **Target population:**
 - Students, working adults, and individuals looking for healthy food without compromising quality/flavor
 - Population primarily focused on are individuals who suffer from obesity, CVD, and diabetes⁴
- **75% of US Consumers support a policy to reduce the amount of added sugar in the food supply¹, including:**
 - 83% of consumers who are trying to reduce their sugar intake¹
 - 80% of consumers with children in their household ¹
 - 79% of consumers with high blood pressure, diabetes, high cholesterol, heart disease, or cancer¹
 - 70% of Republicans, 83% of Democrats, 73% of Independents¹
- **Potential benefits:**
 - Reduced risk of CVD events, CVD deaths, diabetes, obesity, healthcare costs ⁴
 - Better blood sugar regulation, reduction in daily sugar intake from processed food ⁴

1. (Center for Science in the Public Interest [CSPI], n.d.)

4. (Shangguan et al., 2021)

Projected Savings of the Lower Sugar “Trend”⁴



“Estimated reductions in total CVD events and diabetes cases, gains in quality-adjusted life-years (QALYs), formal health care savings, and net savings from a health care perspective and a societal perspective of the US National Salt and Sugar Reduction Initiative voluntary sugar reformulation policy in US adults over 10 years and lifetime”⁴

Regular

vs.

Lower Sugar



Regular

vs.

Lower Sugar



FLAVOR WITH OTHER NATURAL FLAVORS

QUAKER
- ESTD 1877 -

GOODNESS YOU CAN TASTE.

At Quaker, we believe that nothing should stand between you and a great breakfast. That's why we strive to keep it simple, with delicious ingredients like sweet, tart apple pieces and tangy cinnamon in every bowl.

100% WHOLE GRAINS		GOOD SOURCE OF FIBER	
HEART HEALTHY <small>Diets rich in whole grain foods and other plant foods and low in saturated fat and cholesterol may help reduce the risk of heart disease.</small>		NO ARTIFICIAL PRESERVATIVES, FLAVORS OR ADDED COLORS	

QUAKER SUSTAINABILITY PLEDGE
We value our communities and are continually on the lookout for ways to reduce our environmental impact - especially in areas of oat farming, packaging, and shipping. We've made progress, but there's more work to be done. Join us in our journey to take better care of the Earth. After all, that's where oats come from. To learn more, visit www.pepsi.co/sustainability



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LOWER SUGAR 35% LESS SUGAR
THAN REGULAR APPLES & CINNAMON FLAVOR**

These oats are sweetened with Monk Fruit extract from the Monk Fruit plant. It's sweeter than sugar so we don't need much to make great tasting oatmeal you love.

**That's a low calorie food. See nutrition facts for sugar and calorie content.

100% WHOLE GRAINS		GOOD SOURCE OF FIBER <small>Contains 2g total fat per serving</small>	
HEART HEALTHY <small>Diets rich in whole grain foods and other plant foods and low in saturated fat and cholesterol may help reduce the risk of heart disease.</small>		NO ARTIFICIAL PRESERVATIVES, FLAVORS OR ADDED COLORS	

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Regular

Nutrition Facts

8 servings per container
Serving size 1 packet (43g)

Amount per serving
Calories 160

	% Daily Value*
Total Fat 2g	3%
Saturated Fat 0.5g	2%
Trans Fat 0g	
Polyunsaturated Fat 0.5g	
Monounsaturated Fat 1g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 33g	12%
Dietary Fiber 4g	13%
Soluble Fiber 1g	
Total Sugars 11g	
Includes 8g Added Sugars	16%
Protein 4g	
Vitamin D 0mcg	0%
Calcium 20mg	0%
Iron 1.2mg	6%
Potassium 150mg	2%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS: Whole grain oats, sugar, dried apples, natural flavor, salt, cinnamon.

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P.O. BOX 049003
CHICAGO, IL 60604-9003 U.S.A.
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100% OF THE GRAIN IS WHOLE GRAIN

Eat at least three one ounce equivalent (3 servings) of WHOLE GRAINS per day for fiber and overall health. Each oatmeal packet contains a one ounce equivalent (1 serving) of whole grains.



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Nutrition Facts

8 servings per container
Serving size 1 packet (31g)

Amount per serving
Calories 110

	% Daily Value*
Total Fat 2g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Polyunsaturated Fat 0.5g	
Monounsaturated Fat 0.5g	
Cholesterol 0mg	0%
Sodium 150mg	7%
Total Carbohydrate 22g	8%
Dietary Fiber 3g	10%
Soluble Fiber 1g	
Total Sugars 5g	
Includes 2g Added Sugars	5%
Protein 3g	
Vitamin D 0mcg	0%
Calcium 20mg	0%
Iron 1mg	4%
Potassium 110mg	2%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

INGREDIENTS: Whole grain oats, dried apples, sugar, salt, cinnamon, monk fruit extract, natural flavor.

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**Sugar Content (on a 55 gram basis). This product has 9 grams sugar. Our regular Apples & Cinnamon flavor has 14 grams.



100% OF THE GRAIN IS WHOLE GRAIN

Eat at least three one ounce equivalent (3 servings) of WHOLE GRAINS per day for fiber and overall health. Each oatmeal packet contains a one ounce equivalent (1 serving) of whole grains.



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Lower Sugar

Why is this important?



Overconsumption of foods or beverages high in added sugars is linked to an increased risk of type 2 diabetes and cardiovascular disease, in part by increasing the risk of weight gain, and can contribute to dental decay.¹

It is becoming more evident that preventative measures must be taken mitigate this. It starts with industry leaders since most of the intake stems from either convenient ready-made food or restaurants.

One of the solutions is to reduce daily sugar intake, through choosing whole foods or products with lower sugar alternatives.

Comparing Ingredients

Structure/Function claim:

- ✓ • heart healthy

Health claim:

- ✓ • Diets rich in whole grain foods and low in saturated fat and cholesterol may help reduce the risk of heart disease

Less added sugar → it is listed after the apples on the alternative

Less natural flavor → listed as the last ingredient on the alternative

Monk-fruit extract is the additive

Nutrition Facts		Nutrition Facts	
8 servings per container		8 servings per container	
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Calories 160		Calories 110	
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Polyunsaturated Fat 0.5g		Polyunsaturated Fat 0.5g	
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Vitamin D 0mcg	0%	Vitamin D 0mcg	0%
Calcium 20mg	0%	Calcium 20mg	0%
Iron 1.2mg	6%	Iron 1mg	4%
Potassium 150mg	2%	Potassium 110mg	2%

Original

INGREDIENTS: Whole grain oats, sugar, dried apples, natural flavor, salt, cinnamon.

Lower Sugar

INGREDIENTS: Whole grain oats, dried apples, sugar, salt, cinnamon, monk fruit extract, natural flavor.

Approved Claims

Whole Grain Foods and Risk of Heart Disease and Certain Cancers

(Docket No. 1999P-2209)

Food Requirements

Contains 51 percent or more whole grain ingredients by weight per RACC, and

Dietary fiber content at least:

- 3.0 g per RACC of 55 g
- 2.8 g per RACC of 50 g
- 2.5 g per RACC of 45 g
- 1.7 g per RACC of 35 g

Claim Requirement

Required wording of the claim:

“Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol may reduce the risk of heart disease and some cancers.”

Additive – Monk Fruit Extract



Monk fruit extracts are prepared by extracting the water of the fruit of *Siraitia grosvenorii*. The main components of this fruit are Cucurbitane glycosides²

→ Most of them taste sweet, so they are collectively called mogrosides.²

→ Mogrosides are present in the fresh fruit (0.55–0.65%). Mogroside V being the main mogroside in the Monk fruit extract.²

Human Clinical study results:

- No effect on blood glucose or liver enzymes^{2,3}
- No adverse effects were reported in the clinical studies^{2,3}
- Mogroside V is absorbed to some extent and is systemically bioavailable^{2,3}
 - study compared ingestion of sucrose vs. monk fruit extract. Sucrose increased blood glucose by 70% and went down to starting level after 3 hours. Monk Fruit extract had no effect.²

Animal study results:

- No side effects³
- No maternal/fetal effects³
- No parental, reproductive or developmental toxicity.³

2. (EFSA Panel on Food Additives and Flavourings [FAF], 2019)

3. (Kaim & Labus, 2025)

Nutrient Claims

Nutrient Content Claims:

- **35% less sugar than regular apple & cinnamon flavor**
→ see next slide for review
- **good source of fiber** ✓
→ must be 10–19% of DV → original had 13%, alternative had 10%
- **made with 100% whole grains** ✓
→ ingredient list says whole grain oats on both products
- **no artificial preservatives or flavors** ✓
→ only used “natural flavors” which were indicated on the ingredient list

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INGREDIENTS: Whole grain oats, dried apples, sugar, salt, cinnamon, monk fruit extract, natural flavor.

Nutrient Claims (cont.)

The claims are justified.

Based on the Smart Label

Equation: $[\text{grams of total sugar}] \times [55\text{g based on Smart Label}] / [\text{Weight of Serving Size in grams}]$

Original $\rightarrow 11\text{g} \times [55\text{g} \div 43\text{g}] = 14.07 = \text{about } 14\text{g}$

Alternative $\rightarrow 5\text{g} \times [55\text{g} \div 31\text{g}] = 8.87 = \text{about } 9\text{g}$

Calculate the Difference:

$14\text{g} - 9\text{g} = 6\text{g} \rightarrow$ now divide by original product's total sugar (14g) to calculate percent difference

$6\text{g} \div 14\text{g} = 0.357 \times 100 = 35.7\%$ less sugar than original product

How might consumer interpret these claims, can they be misleading?

- The calculation of 35% less sugar is based on the Smart Label which is calculated based on 55g serving. But the nutrition label is for a 31g serving. So, the numbers do not necessarily match up with the nutrition label, and may be confusing to the customer.
- Regardless it is still lower in sugar when compared to the original.

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Trans Fat 0g		Trans Fat 0g	
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****Sugar Content (on a 55 gram basis):**
This product has 9 grams sugar.
Our regular Apples & Cinnamon
flavor has 14 grams.

Would You Recommend This Lower Sugar Trend?



Yes, I would recommend this lower sugar trend to the specific target population. Reason being LNCS can reduce calorie intake, enhance adherence to nutrition recommendations, and assist in weight and glycemic management when substituted for added sugars in an individual's eating plan⁵. It also does not negatively affect blood glucose levels (H_{A1C} or fasting or postprandial glucose) or insulin regulation in individuals with or without diabetes⁵

Would you recommend this product?

I would not recommend this product for those in the target population that may be experiencing gastrointestinal issues or have sensitive stomach. The monk fruit extract may cause some digestive upset, and they would be better suited making a DIY instant oatmeal without the additives by adding their own fruit, spices, and quick oats.

In terms of the flavor, unfortunately, there was an aftertaste from the monk fruit that wasn't very pleasant. Based off the reviews online, many individuals who asked for it to be lower sugar meant they wished for it to be less sweet in terms of flavor as well. They would prefer a lower sugar version that didn't have an aftertaste or required an additive.

References

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Any Questions?

