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Memorandum 07-02

To: Institutions Participating in the Child and Adult Care Food Program

**From: Arnette Cowan, MS, RD, LDN
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Subject: Determining Creditability of Breakfast Cereals for Child Nutrition Programs (MEMO Code : (TA01-2007))

This memo serves two purposes:

1. Reviews existing FNS guidance applicable to breakfast cereals; and
2. Provides an *additional* option to help determine if breakfast cereals that do not indicate they are enriched or fortified (either ready-to-eat or ready-to-cook), are creditable towards the grains/breads component for reimbursable meals served to children ages one and older under a food-based menu planning approach.

Existing FNS Guidance:

The *FCS¹ Grains/Breads Instruction 783.1 Rev 2* and the *Food Buying Guide for Child Nutrition Programs (FBG)*, section three, provide current guidance on crediting of grains/breads products. These guidance documents are still valid. Specifically, the flow chart in section three, on page 3-7 in the FBG is based on the *Grains/Breads Instruction*

¹ The agency name was Food and Consumer Service at the time the instruction was revised. The official title of the instruction is used here.

and provides several options to determine creditability of breakfast cereals. A breakfast cereal is creditable if any of the following are true:

- 1) the cereal is labeled as whole grain (100% of the grain component is whole grain)²;
- 2) the cereal is labeled as “enriched”;
- 3) the cereal is labeled as “fortified”;
- 4) the ingredient statement shows that the primary grain ingredient is either whole grain, enriched flour or meal, bran, or germ; or
- 5) manufacturer documentation provides the gram amount of creditable grains per serving.

New Problem with Crediting Breakfast Cereals

Some cereal manufacturers no longer attach the words “fortified” or “enriched” to the name of the cereal on the label. In addition, some cereal manufacturers are adding the words “whole grain” or “made with whole grain” to the product label even if the grain component is not 100% whole grain. This makes it difficult to determine if the cereal is creditable.

Another Option for Determining the Creditability of Breakfast Cereals:

If the cereal label does not give enough information to complete the steps in the FBG flow chart mentioned above, you may use the nutrient criteria FNS has provided as a sixth option for determining creditability of breakfast cereals.

To provide consistency in determining grains/breads creditability, FNS has established nutrient criteria for breakfast cereals (hereafter referred to as FNS Nutrient Criteria for Breakfast Cereals) based on the minimum required amounts of selected nutrients in one slice of enriched bread. This nutrient profile is not intended to set a standard of identity for breakfast cereals or any other grains/breads product; it only provides guidance for the CN programs in determining if a breakfast cereal is a creditable grains/bread component of reimbursable meals served under food-based menu planning.

The FNS Nutrient Criteria for Breakfast Cereals do not replace the guidance in the *Grains/Breads Instruction* or FBG; they just provide an additional option. In other words, if a breakfast cereal is determined to be creditable using the *Grains/Breads Instruction* or the FBG flowchart, the cereal remains creditable even if the product does not meet any or all of the five nutrient criteria outlined in this memo. It is expected that cereal creditability will be first determined using the *Grains/Breads Instruction* or the FBG and that the FNS Nutrient Criteria for Breakfast Cereals will be used as a last option. If you need to use the FNS Nutrient Criteria for Breakfast Cereals to determine creditability, then the product must contain the minimum levels of all five nutrients (thiamin, riboflavin, niacin, folic acid, and iron) listed.

² The intent of question one of the flow chart and section I of the Grains/Breads Instruction is to identify products having whole grain as 100% of the grain component. The examples given in the flow chart (whole wheat bread,” whole wheat rolls,” etc.) were based on products having a standard of identity requiring the grain component to be 100% whole grain. Most cereals do not have a standard of identity and the words “whole grain” or “made with whole grain” in the product label *do not* indicate that the grain component is 100% whole grain. For cereals to meet the requirement of question one of the flow chart or section I of the Grains/Breads Instruction, 100% of the grain component must be whole grain.

FNS Nutrient Criteria for Breakfast Cereals Served to Children Ages One and Older					
Required Nutrient	Cereal Portion Size		Minimum % Daily Value (%DV) of Nutrient per Portion	or	Minimum Weight of Nutrient per Portion
	Ready-to-Eat (whichever amount weighs less)	Ready-to-Cook			
Thiamin (B1)	1.0 ounce or 3/4 cup	25 grams dry	6.7 %	or	0.10 mg
Riboflavin (B2)	1.0 ounce or 3/4 cup	25 grams dry	3.5 %	or	0.06 mg
Niacin (B3)	1.0 ounce or 3/4 cup	25 grams dry	4.2 %	or	0.84 mg
Folic Acid (B9)	1.0 ounce or 3/4 cup	25 grams dry	5.0 %	or	20.0 mcg
Iron	1.0 ounce or 3/4 cup	25 grams dry	3.9 %	or	0.70 mg

It is important to note that the FNS Nutrient Criteria for Breakfast Cereals are set for specific portion sizes. The portion size for ready-to-eat breakfast cereals is one ounce **or** 3/4 cup, whichever amount weighs less. The portion size for cooked cereal is 25 grams of ready-to-cook, dry cereal regardless of the amount of cooked cereal served or the amount of liquid added to cook the cereal.

If the serving size on the Nutrition Facts Label *matches the cereal portion size listed* in the FNS Nutrient Criteria for Breakfast Cereals chart, then you can compare the nutrients listed on the Nutrition Facts Label to the FNS Nutrient Criteria for Breakfast Cereals.

If the serving size does **not match the cereal portion size listed** in the FNS Nutrient Criteria for Breakfast Cereals chart, then you will need to convert the nutrient values from the label to determine the amount of nutrients in the required cereal portion size.

You can convert the nutrient values using the online USDA, Agricultural Research Service (ARS), Nutrient Data Laboratory, National Nutrient Database for Standard Reference or you can manually calculate the nutrient values. We recommend that you use the ARS National Nutrient Database for Standard Reference. Procedures for converting the nutrient values per portion size are described in Attachments A, B, and C.

If you have questions related to this guidance or need assistance in converting the nutrients in a specific cereal, please contact your regional consultant.

Using the online USDA, ARS National Nutrient Database for Standard Reference to Convert Nutrient Values per Portion Size of Breakfast Cereals

Steps for obtaining nutrient data for breakfast cereals using the online USDA, Agricultural Research Service (ARS) National Nutrient Database for Standard Reference:

- 1) Go online to the ARS National Nutrient Database for Standard Reference at <http://www.nal.usda.gov/fnic/foodcomp/search/>
- 2) Using the search function, type in the key word “cereals” to pull up all of the cereal selections **or** enter in a specific cereal you are looking for then click “submit.”
- 3) Choose one cereal by clicking on the button to the left of the product you wish to select (the button will be filled in to show that you have made a selection). Only one selection is permitted. If you want data for a ready-to-cook cereal, make sure you select the cereal option described as dry, e.g.; cereals, oats, dry. Click on “submit” which is located at the bottom of the product list.
- 4) Select the quantities and units you want data for and click submit (one or more selections are permitted):

a. **Ready-to-eat cereals**

You will need to select both 1 oz and 3/4 cup measures to determine which serving size weighs less. (If volume data is not available, use the manual conversion method shown in attachments B and C.)

- i. *Review nutrient data for one ounce (28.35 grams) of cereal:*
Select 100 grams as the description,
Change 1.00 (100 grams) to 0.2835 (100 grams), **and**
- ii. *Review the nutrient data for 3/4 cup (0.75 cup) of cereal:*
Select the description measured in cups,
The volume unit may be different depending on the cereal,
If the unit is 1.00 (.75 cup), keep as 1.00 (.75 cup),
If the unit is 1.00 (1 cup), change to 0.75 (1 cup),
If the unit is 1.00 (.5 cup), change to 1.5 (.5 cup)
If the unit is 1.00 (? cup), you will need to determine what number or fraction 3/4 cup is of the unit provided in parentheses and change 1.00 to the number or fraction required to obtain 3/4 cup
- iii. *click “submit”*

b. Ready-to-cook cereals, dry

- i. Review the nutrient data for 25 grams of dry cereal:
Select 100 grams as the description,
Change 1.00 (100 grams) to 0.25 (100 grams),
Make sure this option is selected.*
- ii. Click “submit”*

5) Compare the nutrient profile provided for the cereal to the FNS Nutrient Criteria for Breakfast Cereals.

a. Ready-to-eat cereals:

The nutrient profile will show the amounts for 28.35 grams (1 ounce) *and* for 3/4 cup. The gram weight for 3/4 cup will appear in the heading. Since cereals are credited 1 ounce or 3/4 cup whichever amount weighs less, choose the column having the lowest gram weight and use that column of nutrients to compare to the FNS Nutrient Criteria for Breakfast Cereals. To be creditable, the cereal must meet or exceed the minimum criteria for all five of the required nutrients.

b. Ready-to-Cook cereals, dry:

Since the portion size for ready-to-cook cereals is 25 grams dry, all cooked cereals will be based on 25 grams dry, regardless of the amount of cooked cereal served in the meal or how much liquid is added to cook the cereal. Compare the nutrient values to the FNS Nutrient Criteria for Breakfast Cereals. To be creditable, the cereal must meet or exceed the minimum criteria for all five of the required nutrients.

6) Print the documentation and keep on file.

Ready-to-Eat Cereals: *Cereal portion size from the FNS Nutrient Criteria for Breakfast Cereals = 1.0 ounce (28.35 grams) or the weight of 3/4 cup – whichever amount weighs less;*

Brand Name _____ Cereal Name _____

1. The portion size of the ready-to-eat cereal on Nutrition Facts Label: _____ cup(s) _____ grams
2. Determine the weight of 3/4 cup of the cereal:
 0.75 cup *divided by* _____ cup(s) of cereal from Nutrition Facts Label = _____ factor
 _____ factor *multiplied by* _____ grams / portion from Nutrition Facts Label = _____ grams per 3/4 cup cereal
3. Which weighs less, One Ounce (28.35 grams) or _____ grams per 3/4 cup of cereal?
 The amount that weighs less = _____ grams; the nutrients in this amount of cereal will be used to compare to the FNS Criteria for Breakfast Cereals.
4. Determine the conversion factor based on the amount of ready-to-eat cereal that weighs less (Do not round up):
 _____ grams (amount that weighs less) *divided by* _____ grams (from Nutrition Facts Label) = _____ conversion factor for nutrients
5. Calculate the nutrients from the Nutrition Facts Label to the nutrients in the amount that weighs less by multiplying by the conversion factor for nutrients:

A. Nutrient	B. % DV from Nutrition Facts Label	x	C. Conversion Factor for Nutrients	=	D. Nutrients per Amount that Weighs less	E. FNS Nutrient Criteria For Breakfast Cereals	F. Is the Amount in Column D Equal to or Greater than the Amount in Column E? Yes or No
Thiamin (B1)		x		=		6.7 %	
Riboflavin (B2)		x		=		3.5 %	
Niacin (B3)		x		=		4.2 %	
Folic Acid (B9)		x		=		5.0 %	
Iron		x		=		3.9 %	

6. _____ All of the answers in Column F are “yes,” the cereal is creditable using this option
 _____ One or more of the answers in column F are “no,” the cereal is **not** creditable using this option

(Keep in mind that cereals meeting the requirements allowed in the Grains/Breads Instruction or FBG flowchart are creditable even if they do not meet the FNS Nutrient Criteria for Breakfast Cereals.)

Ready-to-Eat Cereals: *Cereal portion size from the FNS Nutrient Criteria for Breakfast Cereals = 1.0 ounce (28.35 grams) or the weight of 3/4 cup – whichever amount weighs less;*

Brand Name General Mills **Cereal Name** Wheaties

1. The portion size of the ready-to-eat cereal on Nutrition Facts Label: 1 cup(s) 30 grams
2. Determine the weight of 3/4 cup of the cereal:
 0.75 cup *divided by* 1 cup(s) of cereal from Nutrition Facts Label = 0.75 factor
 0.75 factor *multiplied by* 30 grams / portion from Nutrition Facts Label = 22.5 grams per 3/4 cup cereal
3. Which weighs less, One Ounce (28.35 grams) or 22.5 grams per 3/4 cup of cereal?
 The amount that weighs less = 22.5 grams; the nutrients in this amount of cereal will be used to compare to the FNS Criteria for Breakfast Cereals.
4. Determine the conversion factor based on the amount of ready-to-eat cereal that weighs less (Do not round up):
 22.5 grams (amount that weighs less) *divided by* 30 grams (from Nutrition Facts Label) = 0.75 conversion factor for nutrients
5. Calculate the nutrients from the Nutrition Facts Label to the Nutrients in the amount that weighs less by multiplying by the conversion factor for nutrients:

A. Nutrient	B. % DV from Nutrition Facts Label	x	C. Conversion Factor for Nutrients	=	D. Nutrients per Amount that Weighs less	E. FNS Nutrient Criteria For Breakfast Cereals	F. Is the Amount in Column D Equal to or Greater than the Amount in Column E? Yes or No
Thiamin (B1)	50 %	x	0.75	=	37.5 %	6.7 %	Yes
Riboflavin (B2)	50 %	x	0.75	=	37.5 %	3.5 %	Yes
Niacin (B3)	50 %	x	0.75	=	37.5 %	4.2 %	Yes
Folic Acid (B9)	50 %	x	0.75	=	37.5 %	5.0 %	Yes
Iron	45 %	x	0.75	=	33.7 %	3.9 %	Yes

6. All of the answers in Column F are “yes,” therefore, the cereal **is** creditable using this option
 One or more of the answers in column F are “no,” therefore, the cereal is **not** creditable using this option

(Keep in mind that cereals meeting the requirements allowed in the Grains/Breads Instruction or FBG flowchart are creditable even if they do not meet the FNS Nutrient Criteria for Breakfast Cereals.)

Ready-to-Cook Cereals: *Cereal portion size from the FNS Nutrient Criteria for Breakfast Cereals = 25.0 grams ready-to-cook dry cereal*

Brand Name _____ Cereal Name _____

1. The portion size of the ready-to-cook dry cereal on Nutrition Facts Label: _____ cup(s) _____ grams
2. Determine the conversion factor for nutrients (Do not round up):
 25 grams *divided by* _____ grams (from Nutrition Facts Label) = _____ conversion factor for nutrients
3. Calculate the nutrients from the Nutrition Facts Label to the nutrients in 25 grams of ready-to-cook dry cereal by multiplying by the conversion factor for nutrients:

A. Nutrient	B. % DV from Nutrition facts Label	x	C. Conversion Factor for Nutrients	=	D. Nutrients per 25 Grams Ready-to-Cook Dry Cereal	E. FNS Nutrient Criteria For Breakfast Cereals	F. Is the Amount in Column D Equal to or Greater than the Amount in Column E? Yes or No
Thiamin (B1)		x		=		6.7 %	
Riboflavin (B2)		x		=		3.5 %	
Niacin (B3)		x		=		4.2 %	
Folic Acid (B9)		x		=		5.0 %	
Iron		x		=		3.9 %	

4. _____ All of the answers in Column F are “yes,” the cereal **is** creditable using this option
 _____ One or more of the answers in column F are “no,” the cereal is **not** creditable using this option

(Keep in mind that cereals meeting the requirements allowed in the Grains/Breads Instruction or FBG flowchart are creditable even if they do not meet the FNS Nutrient Criteria for Breakfast Cereals.)

Ready-to-Cook Cereals: *Cereal portion size from the FNS Nutrient Criteria for Breakfast Cereals = 25.0 grams ready-to-cook dry cereal*

Brand Name Quaker **Cereal Name** Instant Grits, Real Cheddar Cheese Flavor

1. The portion size of the ready-to-cook dry cereal on Nutrition Facts Label: 1 packet cup(s) 28 grams
2. Determine the conversion factor for nutrients (Do not round up):
 $25 \text{ grams} \div \underline{28} \text{ grams (from Nutrition Facts Label)} = \underline{0.89}$ conversion factor for nutrients
3. Calculate the nutrients from the Nutrition Facts Label to the nutrients in 25 grams of ready-to-cook dry cereal by multiplying by the conversion factor for nutrients:

A. Nutrient	B. % DV from Nutrition facts Label	x	C. Conversion Factor for Nutrients	=	D. Nutrients per 25 Grams Ready-to-Cook Dry Cereal	E. FNS Nutrient Criteria For Breakfast Cereals	F. Is the Amount in Column D Equal to or Greater than the Amount in Column E? Yes or No
Thiamin (B1)	10 %	x	0.89	=	8.9 %	6.7 %	Yes
Riboflavin (B2)	10 %	x	0.89	=	8.9 %	3.5 %	Yes
Niacin (B3)	10 %	x	0.89	=	8.9 %	4.2 %	Yes
Folic Acid (B9)	10 %	x	0.89	=	8.9 %	5.0 %	Yes
Iron	45 %	x	0.89	=	40.0 %	3.9 %	Yes

4. All of the answers in Column F are “yes,” the cereal **is** creditable using this option
 One or more of the answers in column F are “no,” the cereal is **not** creditable using this option

(Keep in mind that cereals meeting the requirements allowed in the Grains/Breads Instruction or FBG flowchart are creditable even if they do not meet the FNS Nutrient Criteria for Breakfast Cereals.)