

# Meal Patterns



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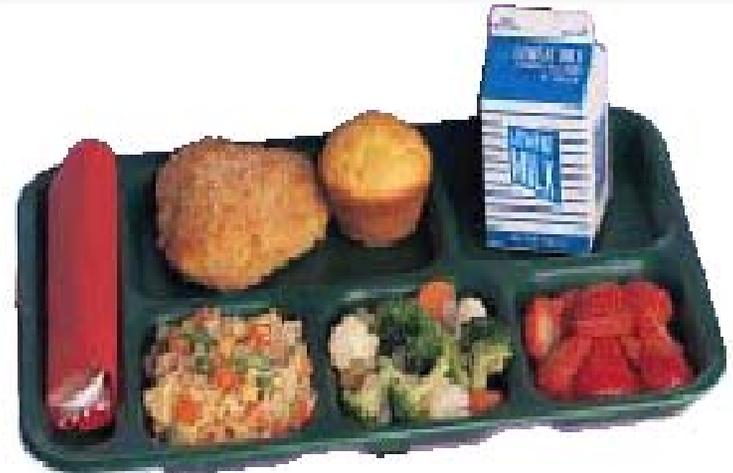
# Meal Patterns

- A great place to start
- Nearly everything else a FSD does starts with developing the menu using specific meal pattern guidelines
- Correct meal pattern meals are reimbursable creating revenues for the district



# For the NSLP, Plan Meals by using:

1. Food Based Menu Planning - Traditional
2. Food Based Menu Planning – Enhanced
3. Nutrient Standard Menu Planning
4. Assisted Nutrient Standard Menu Planning
5. Alternate Menu Planning Approach





# Traditional Food Based Menu Planning

- The 5 lunch food items are:
  - 1) Meat/Meat Alternate
  - 2) Grains/Breads
  - 3) Juice/Fruit/Vegetable (V/F)
  - 4) Fruit/Vegetable (2<sup>nd</sup> Serving)

\*\*Can not serve two servings of juice or two servings of the same F/V

  - 5) Milk



# Meal Pattern Chart – Traditional

TRADITIONAL FOOD-BASED MENU PLANNING APPROACH—MEAL PATTERN FOR LUNCHESES					
FOOD COMPONENTS AND FOOD ITEMS	MINIMUM QUANTITIES				RECOMMENDED QUANTITIES
	GROUP I AGES 1-2 PRESCHOOL	GROUP II AGES 3-4 PRESCHOOL	GROUP III, AGES 5-8 GRADES K-3	GROUP IV AGES 9 AND OLDER GRADES 4-12	GROUP V AGES 12 AND OLDER, GRADES 7-12
Milk (as a beverage)	6 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces	8 fluid ounces
Meat or Meat Alternate (quantity of the edible portion as served):					
Lean meat, poultry, or fish	1 ounce	1½ ounces	1½ ounces	2 ounces	3 ounces
Alternate Protein Products <sup>1</sup>	1 ounce	1½ ounces	1½ ounces	2 ounces	3 ounces
Cheese	1 ounce	1½ ounces	1½ ounces	2 ounces	3 ounces
Large egg	½	¾	¾	1	1½
Cooked dry beans or peas	¼ cup	3/8 cup	3/8 cup	½ cup	¾ cup
Peanut butter or other nut or seed butters	2 tablespoons	3 tablespoons	3 tablespoons	4 tablespoons	6 tablespoons
Yogurt, plain or flavored, unsweetened or sweetened	4 ounces or ½ cup	6 ounces or ¾ cup	6 ounces or ¾ cup	8 ounces or 1 cup	12 ounces or 1½ cups
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above: Peanuts, soy nuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 ounce of nuts/seeds=1 ounce of cooked lean meat, poultry, or fish)	½ ounce =50%	¾ ounce =50%	¾ ounce =50%	1 ounce =50%	1½ ounces =50%
Vegetable or Fruit: 2 or more servings of vegetables, fruits or both	½ cup	½ cup	½ cup	¾ cup	¾ cup
Grains/Breads: (servings per week): Must be enriched or whole grain. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains	5 servings per week <sup>2</sup> -- minimum of ½ serving per day	8 servings per week <sup>2</sup> -- minimum of 1 serving per day	8 servings per week <sup>2</sup> -- minimum of 1 serving per day	8 servings per week <sup>2</sup> -- minimum of 1 serving per day	10 servings per week <sup>2</sup> -- minimum of 1 serving per day

<sup>1</sup> Must meet the requirements in appendix A of 7 CFR 210.

<sup>2</sup> For the purposes of this table, a week equals five days.



# Traditional Food Based

- Lunches (food based) offered to students must contain:
  - the 5 food items;
  - from 4 different components;
  - in at least the minimum serving sizes for the appropriate age/grade group



# Enhanced Lunch Based Menu Planning

- The 5 lunch food items are:
  - 1) Meat/Meat Alternate
  - 2) Grains/Breads
  - 3) Juice/Fruit/Vegetable (V/F)
  - 4) Fruit/Vegetable (2<sup>nd</sup> Serving)
  - 5) Milk
- \*\*Can not serve two servings of juice or two servings of the same F/V



# Enhanced Food Based

ENHANCED FOOD-BASED MENU PLANNING APPROACH-MEAL PATTERN FOR LUNCHEES					
FOOD COMPONENTS AND FOOD ITEMS	MINIMUM REQUIREMENTS				OPTION FOR
	AGES 1-2	PRESCHOOL	GRADES K-6	GRADES 7-12	GRADES K-3
Milk (as a beverage)	6 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces	8 fluid ounces
Meat or Meat Alternate (quantity of the edible portion as served):					
Lean meat, poultry, or fish	1 ounce	1½ ounces	2 ounces	2 ounces	1½ ounces
Alternate protein products <sup>1</sup>	1 ounce	1½ ounces	2 ounces	2 ounces	1½ ounces
Cheese	1 ounce	1½ ounces	2 ounces	2 ounces	1½ ounces
Large egg	½	½	1	1	½
Cooked dry beans or peas	¾ cup	¾ cup	¾ cup	¾ cup	¾ cup
Peanut butter or other nut or seed butters	2 tablespoons	3 tablespoons	4 tablespoons	4 tablespoons	3 tablespoons
Yogurt, plain or flavored, unsweetened or sweetened	4 ounces or ½ cup	6 ounces or ¾ cup	8 ounces or 1 cup	8 ounces or 1 cup	6 ounces or ¾ cup
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above: Peanuts, <del>soy nuts</del> , tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 ounce of nuts/seeds equals 1 ounce of cooked lean meat, poultry or fish).	½ ounce =50%	¾ ounce =50%	1 ounce =50%	1 ounce =50%	¾ ounce =50%
Vegetable or Fruit: 2 or more servings of vegetables, fruits or both	¾ cup	¾ cup	¾ cup plus an extra ¼ cup over a week <sup>2</sup>	1 cup	¾ cup
Grains/Breads (servings per week): Must be enriched or whole grain. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains	5 servings per week <sup>2</sup> – minimum of ¼ serving per day	8 servings per week <sup>2</sup> – minimum of 1 serving per day	12 servings per week <sup>2</sup> – minimum of 1 serving per day <sup>3</sup>	15 servings per week <sup>2</sup> – minimum of 1 serving per day <sup>3</sup>	10 servings per week <sup>2</sup> – minimum of 1 serving per day <sup>3</sup>

<sup>1</sup> Must meet the requirements in appendix A of 7 CFR. 210.

<sup>2</sup> For the purposes of this table, a week equals five days.

<sup>3</sup> Up to one grains/breads serving per day may be a dessert.



# Enhanced Food Based

- Lunches (food based) offered to students must contain:
  - the 5 food items;
  - from 4 different components;
  - in at least the minimum serving sizes for the appropriate age/grade group



# REQUIREMENTS FOR MILK

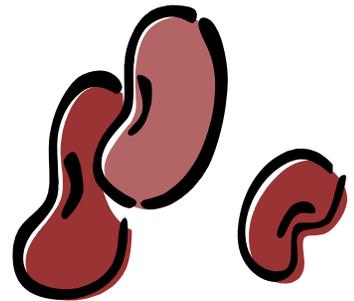
- The minimum amount that can count toward the required serving is 8 fluid ounces.
- A variety of fat contents must be available (for example- whole, low-fat, skim or cultured buttermilk).
- Whenever possible, provide both unflavored and flavored milk as choices.





# REQUIREMENTS FOR MEAT/MEAT ALTERNATES

- Protein can come from many different sources – meats, dairy, eggs, nuts, beans.
- No more than 1 ounce of nuts and/or seeds may be credited in any one meal.
- Dry beans and peas used in items such as baked beans may count as a Vegetable or Meat Alternate but not as both in the same meal.





# REQUIREMENTS FOR FRUITS AND VEGETABLES

- If juice is served to meet one of the requirements, it must be full-strength.
- A serving of canned fruit may include the juice or syrup in which the fruit is packed. See the USDA's Food Buying Guide for Child Nutrition Programs for more information.
- You can serve two fruits or two vegetables or one of each, the servings just be can't be two of the same item (for example, two servings of peaches or tator tots and french fries).





# REQUIREMENTS FOR GRAINS/BREADS



- The item must be whole grain or enriched or made from whole-grain or enriched meal or flour, or bran or germ; or if it is a cereal, the product must be whole grain, enriched or fortified.
- Weekly amounts are specified.
- For enhanced menu planning, a dessert grain product may be counted for one serving of GB per day.



# Combination Foods at Lunch

Q) How can a meal provide 5 food items from the 4 food components yet feature only 4 food items on the menu?

Example:

Cheese Pizza

Fresh Orange

Lettuce Salad

Milk



# Combination Foods at Lunch

Combination foods at lunch are foods containing more than 1 food item.

– Examples

- Spaghetti with Meat Sauce
- Hamburger on Bun
- Macaroni and Cheese



# Sample Menu

Monday	Tuesday	Wednesday	Thursday	Friday
1	2	3	4	5
Spaghetti with Meat Sauce Bread Stick Seasoned Green Beans Fresh Grapes Milk*	Pancakes Scrambled Eggs Hashbrown Patty Baked Apple Slices Milk*	Pepperoni Pizza Fresh Broccoli Buds Petite Banana Milk*	Veggie Stir Fry w/White Beans Brown Rice Chilled Peaches Milk*	Hamburger on Whole Grain Bun Sweet Potato Fries Fresh Pear Milk*
* Variety of fat content				

- Included in your handbook are the Michigan menus developed for the Team Nutrition mini-grants.



# Component Worksheet

- How does it count in the NSLP?
- Create 2 day menu from the items in the list or use your own items!



# Count it?

- Do the following school lunches have less than 5 items, 5 items or more than 5 items?

















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# Nutrient Standard Menu Planning or NuMenus

- A different method of Meal Planning
- Focuses on nutrient content of items offered



# NuMenus Nutrient Standards

- Following are the nutrients analyzed for NuMenus:
  - Calories
  - Protein
  - Calcium
  - Iron
  - Vitamin A
  - Vitamin C
  - Fat -  $\leq 30\%$  calories from fat and  $< 10\%$  calories from saturated fat



# NuMenus Nutrient Standards

- Other Nutrients and Dietary Components Analyzed
  - Cholesterol
  - Sodium
  - Dietary Fiber
  - Carbohydrate
- While there are no quantity standards set for these dietary components, they must be included in the analysis except carbohydrate which is optional.



# Nutrient Standard Menu Planning

## NuMenus

- When averaged over the school week, lunches must meet the specific age or grade based nutrient standards. Following slides details the requirements and is included in your handbook.
- At a minimum, planned menus must contain 3 menu items. Additional Menu items may need to be added in order to meet nutrient standards and/or to increase variety.



# NuMenu Meal Pattern Requirement

- A minimum of three menu items must be offered: an entrée, milk, and at least one side dish.
  - 1) Offer an Entrée: an entrée is a single food item or a combination of foods served as the main dish.
  - 2) Offer fluid milk as a beverage.
  - 3) Offer at least one side dish; may be any food item except a condiment or a food of minimal nutritional value that is not part of a menu item.



# NuMenus Nutrient Standards

**For LUNCHES Planned with NSMP and Assisted NSMP...**

**If You Are Using Grade Groups,  
The Nutrient Standards\* Are:**

Age/Grade Group:	Preschool	Grades K-6	Grades 7-12	Grades K-3 Optional
<b>Energy Allowances</b> (Calories = cal.)	517 cal.	664 cal.	825 cal.	633 cal.
<b>Protein</b> (grams = g)	7 g	10 g	16 g	9 g
<b>Calcium</b> (milligrams = mg)	267 mg	286 mg	400 mg	267 mg
<b>Iron</b> (milligrams = mg)	3.3 mg	3.5 mg	4.5 mg	3.3 mg
<b>Vitamin A</b> (Retinol Equivalents = RE)	150 RE	224 RE	300 RE	200 RE
<b>Vitamin C</b> (milligrams = mg)	14 mg	15 mg	18 mg	15 mg
<b>Total fat</b>	No more than 30 percent of total calories should come from fat.			
<b>Saturated fat</b>	Less than 10 percent of total calories should come from saturated fat.			

**Remember these important points:** (1) This chart shows *minimum school week averages* for nutrients except for fat and saturated fat. (2) Fat should not exceed 30 percent of calories over a school week; and saturated fat should be less than 10 percent of calories over a school week. In addition, be aware that for both total fat and saturated fat, the grams of fat will vary depending on the calorie level.



# Lunch Meal Pattern Methods Summary

1. Food Based Menu Planning – Traditional
  - ✓ 5 items from 4 components,
2. Food Based Menu Planning – Enhanced
  - ✓ 5 items from 4 components, additional age grade groups and increased FV and GB requirements.
3. Nutrient Standard Menu Planning
  - ✓ 3 items, nutrient based, analyzed on site
4. Assisted Nutrient Standard Menu Planning
  - ✓ 3 items, nutrient based, analysis done by others
5. Alternate Menu Planning Approach



# Questions



# Breakfast

- While the School Breakfast Challenge has ended, it continues to be an important initiative state and nation wide. The school breakfast program is vastly underutilized and can contribute to the overall health and learning ability of our children. In your handbook is a brief article discussing breakfast.



# Why School Breakfast?

- Studies have proven that students who eat breakfast benefit nutritionally and educationally. Eating school breakfast results in increased math and reading scores...The majority of students who start their day with breakfast say they feel good, are happy, and more alert throughout their school day.
- [www.michigan.gov/schoolnutrition](http://www.michigan.gov/schoolnutrition)
  - click School Breakfast Program under Programs.



# For the SBP, Plan Meals by using:

1. Food Based Menu Planning - Traditional
2. Food Based Menu Planning – Enhanced
3. Nutrient Standard Menu Planning
4. Assisted Nutrient Standard Menu Planning
5. Alternate Menu Planning Approach





# School Breakfast Pattern

- You must offer 4 food items in the traditional or enhanced menu planning systems:
  - Milk
  - Fruit/Vegetable F/V
  - Meat/Meat Alternate M/MA AND/OR
  - Grains/Bread G/B
    - You can offer 2 M/MA or 2 G/B or one of each.



# Traditional Meal Breakfast Pattern

- Breakfasts offered to students must contain:
  - 4 food items;
  - from 3 or 4 food components;
  - in at least the minimum serving sizes for the appropriate age/grade group.



# Traditional Food Based Menu Breakfast Requirements

TRADITIONAL FOOD-BASED MENU PLANNING APPROACH-MEAL PATTERN FOR BREAKFASTS			
FOOD COMPONENTS AND FOOD ITEMS	AGES 1-2	AGES 3,4 AND 5	GRADES K-12
MILK (fluid) (as a beverage, on cereal or both)	4 fluid ounces	6 fluid ounces	8 fluid ounces
JUICE/FRUIT/VEGETABLE: Fruit and/or vegetable; or full-strength fruit juice or vegetable juice	¼ cup	½ cup	½ cup
SELECT ONE SERVING FROM EACH OF THE FOLLOWING COMPONENTS, TWO FROM ONE COMPONENT, OR AN EQUIVALENT COMBINATION:			
GRAINS/BREADS :			
Whole-grain or enriched bread	½ slice	½ slice	1 slice
Whole-grain or enriched biscuit, roll, muffin, etc.	½ serving	½ serving	1 serving
Whole-grain, enriched or fortified cereal	¼ cup or 1/3 ounce	1/3 cup or ½ ounce	¾ cup or 1 ounce
MEAT OR MEAT ALTERNATES:			
Meat/poultry or fish	½ ounce	½ ounce	1 ounce
Alternate protein products <sup>1</sup>	½ ounce	½ ounce	1 ounce
Cheese	½ ounce	½ ounce	1 ounce
Large egg	½	½	½
Peanut butter or other nut or seed butters	1 tablespoon	1 tablespoon	2 tablespoons
Cooked dry beans and peas	2 tablespoons	2 tablespoons	4 tablespoons
Nuts and/or seeds (as listed in program guidance) <sup>2</sup>	½ ounce	½ ounce	1 ounce
Yogurt, plain or flavored, unsweetened or sweetened	2 ounces or ¼ cup	2 ounces or ¼ cup	4 ounces or ½ cup



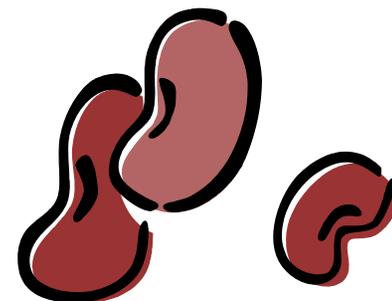
# Menu Planning Options

- Breakfast rules for **Enhanced Food Based Menu Planning** are the same as **Traditional Food Based**.
- There is an option in enhanced food based menu plan for the grade group 7-12 to offer one additional serving of grains/breads per day.



# BREAKFAST REQUIREMENTS FOR MEAT/MEAT ALTERNATES

- Protein can come from many different sources – meats, cheese, yogurt, eggs, nuts, beans.
- No more than 1 ounce of nuts and/or seeds may be credited in any one meal. For breakfast this meets the MA requirement.



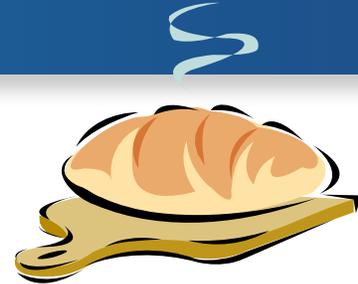


# BREAKFAST REQUIREMENTS FOR FRUITS AND VEGETABLES

- If juice is served to meet the total requirement, it must be full-strength.
- Dry beans and peas used in an item such as a breakfast burrito may count as a Vegetable or as a Meat Alternate, but not as both in the same meal.
- A serving of canned fruit may include the juice or syrup in which the fruit is packed. See the USDA's Food Buying Guide for Child Nutrition Programs for more information.



# BREAKFAST REQUIREMENTS FOR GRAINS/BREADS



- The item must be whole grain or enriched or made from whole-grain or enriched meal or flour, or bran or germ; or if it is a cereal, the product must be whole grain, enriched or fortified.
- The minimum allowable serving size that can count toward meeting the required serving is  $\frac{1}{4}$  of a serving.

# REQUIREMENTS FOR MILK

- The minimum amount that can count toward the required serving is 8 fluid ounces.
- A variety of fat contents must be available (for example- whole, low-fat, skim or cultured buttermilk).
- Milk may be consumed as a beverage or on cereal or used in part for each purpose.
- Whenever possible, provide both unflavored and flavored milk as choices.





# Sample Breakfast Menus

Monday	Tuesday	Wednesday	Thursday	Friday
1	2	3	4	5
Assorted Cereal	Cheese and Egg Quesadilla w/ Salsa	Flavored Yogurt	Toasted Ham & Cheese Sandwich Half	Baked French Toast
Toast and Jam	Applesauce	Bagel Half with Jelly	Pineapple Chunks	Orange Wedges
Orange Juice	Milk	Dried Fruit Mix	Milk	Milk
Milk		Milk*		



# NuMenu Planning Option

- **NuMenus**

*A minimum of three menu items must be offered: milk and at least two side dishes.*

- *Offer fluid milk as a beverage or on cereal or both.*
- *Offer at least two side dishes; may be any food items except a condiment or a food of minimal nutritional value that is not part of a menu item.*
- *Plus any additional planned menu items in the planned portion sizes needed to meet the week's nutrient standards.*



# Nutrient Standards for Breakfast

<b>Minimum Calories and Nutrient Levels for School Breakfast</b>			
	<b>Pre-School</b>	<b>Grades K-6</b>	<b>Grades 7-12</b>
<b>Nutrients and Energy Allowances</b>	<b>388</b>	<b>554</b>	<b>618</b>
<b>Total Fat (g)</b>	<b>*</b>	<b>*</b>	<b>*</b>
<b>Saturated Fat (g)</b>	<b>**</b>	<b>**</b>	<b>**</b>
<b>RDA for Protein (g)</b>	<b>5</b>	<b>10</b>	<b>12</b>
<b>RDA for Calcium (mg)</b>	<b>200</b>	<b>257</b>	<b>300</b>
<b>RDA for Iron (mg)</b>	<b>2.5</b>	<b>3.0</b>	<b>3.4</b>
<b>RDA for Vitamin A (RE)</b>	<b>113</b>	<b>197</b>	<b>225</b>
<b>RDA for Vitamin C (mg)</b>	<b>11</b>	<b>13</b>	<b>14</b>

\* Total fat not to exceed 30 percent of calories over a school week.  
\*\* Saturated fat to be less than 10 percent of calories over a school week.



# Administrative Policies

- #8 – Minimum Fruit Vegetable Portion Sizes and Qualifying Meal Components
- #9 – Fluid Milk Provisions



# Questions



# Resources and Questions

Much of the information contained in this presentation is available online at:

<http://www.fns.usda.gov/cnd/menu/menu.planning.NSLP.htm>

Click on Menu Planner for Healthy School Meals



# INFORMATION FOR MENU PLANNING

- Food Buying Guide for Child Nutrition Programs PA-1331
- FNS Instruction 783-1, Revision 2, the Grains/Breads Requirement for the Food-Based Menu Planning Alternatives in the Child Nutrition Programs
- FNS Instruction 783-7, Revision 1, Milk Requirement- Child Nutrition Programs
- <http://teammnutrition.usda.gov/Resources/menuplanner.html>

