## BEHAVIORAL NUTRITION & PHYSICAL ACTIVITY LABORATORY UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER

# THE IMPACT OF NEW FEDERAL MEAL PATTERNS ON MENU QUALITY IN TRIBAL EARLY CARE: THE FRESH STUDY

Childhood is a formative period when children learn weight related behaviors such as eating behaviors and food preferences.<sup>1</sup> Most children under 5 years attend some type of early care and education.<sup>2</sup> Meals provided at early care programs often do not provide optimal nutrition.<sup>3-6</sup> Programs that participate in the Child and Adult Care Food Program (CACFP) provide healthier food and have healthier food policies.<sup>7,8</sup> However, not all programs implement the CACFP in the most desired manner.<sup>9</sup> New meal patterns were introduced in fall 2017.<sup>10</sup> While the changes are expected to enhance nutrition of children,<sup>11</sup> there is limited understanding of how this will impact programs. The purpose of this project was to understand how these changes would impact early care and education programs operated by a tribe in Oklahoma.

#### **New Meal Patterns**

- USDA updated meal patterns in fall 2017 for the first time since 1968
- Major changes include requiring more whole grains, no desserts, and lower sugar cereal and yogurt
- Best practices introduced

## **Lunch and Supper Meal Patterns**

	Ages 1-2		Ages 3-5	
	Previous	Updated	Previous	Updated
Milk	½ cup	½ cup	¾ cup	¾ cup
Meat and meat alternates	1 oz	1 oz	1 ½ oz	1 ½ oz
Vegetables	¼ cup	⅓ cup	½ cup	¼ cup
Fruits		⅓ cup		¼ cup
Grains	½ serving	⅓ oz eq	½ serving	½ oz eq

## **Best Practices**



#### **Vegetables and Fruit**

- Make at least 1 of the 2 required components of a snack a vegetable or a fruit.
- Serve a variety of fruits and choose whole fruits (fresh, canned, dried, or frozen) more often than juice.
- Provide at least one serving each of dark green vegetables, red and orange vegetables, beans and peas (legumes), starchy vegetables, and other vegetables once per week.



#### **Grains**

• Provide at least two servings of whole grain-rich grains per day.



### **Meat and Meat Alternates**

- · Serve only lean meats, nuts, and legumes.
- Limit serving processed meats to no more than one serving per week.
- Serve only natural cheeses and choose low-fat or reduced fat-cheeses.



## **CACFP Compliance and Dietary Analysis**

- Menus immediately before and after the new meal pattern were collected
- How well each program was meeting the CACFP requirements and best practices was calculated.
- The total point awarded were divided into the max possible points to determine percent.
- Nutrients and energy were determined using Food Processor software.

## **Changes After New Pattern**

- Programs improved how well they met the requirements and best practices after the new meal pattern was introduced, although it was not statistically significant.
- There was no change in energy.
  - 643 kilocalories were served for all meals before and after the new pattern.
- Fiber and sugar improved after new meal pattern.
- Saturated fat increased, which is



Programs had higher compliance with requirements and best practices after the new meal pattern, but changes were small. Significant changes were observed in some nutrients (fiber and sugar) that indicate better dietary quality after the new meal pattern. These changes were expected since changes included elimination of desserts, required low sugar yogurt and cereal, and whole grains.

#### References

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