

# HOPE2 Nutrition-focused Policy and Curricula Improve Consumption of Nutrient-rich Foods by Children, and Dietetic Practices (Menu Creation), in Elementary Schools

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## BACKGROUND

Childhood obesity continues to be a major clinical and public health issue. Schools provide ideal settings to implement obesity prevention strategies to large and diverse pediatric audiences. Healthier Options for People through Extension (HOPE)2 is a 4-year (2009-2012), six-state (AR, FL, LA, MI, MS, and NM) prevention intervention with policy, nutrition, and physical activity components.



## METHODS

HOPE2 is an elementary school-based obesity prevention intervention targeting ethnically diverse children in Kindergarten-5th grade. One component of the intervention included social marketing of, and experiential food opportunities regarding, nutrient-rich foods. Accordingly, educational activities teaching children and adults about nutrient-rich foods took place throughout the school, with a focus on activities in the school feeding areas/cafeterias. Elementary school foodservice (FS) managers completed FS surveys fall/baseline and spring/follow-up, assessing child consumption of nutrient-dense foods (a targeted HOPE2 intervention in meals and educational curricula), use of federal feeding/nutrition programs, and collaborations with outside organizations in support of obesity-prevention policy changes. Thirty-eight (38) FS managers participated in 2010-2011 data collection.



## CONCLUSIONS

HOPE2 showed positive effects of nutrition components of obesity interventions in elementary schools resulting from policies and curricula that support such efforts – namely, increases in consumption by children and menuing of nutrient-rich items as part of government feeding programs (school-provided breakfasts, lunches, and snacks).



## RESULTS

Through USDA school feeding programs, schools are serving many nutrient-rich foods. In particular, the 38 FS respondents indicated their schools serve nutrient-rich foods, as part of government-funded programs, that model educational activities including skinless meats (94.7% 2010; 97.4% 2011), sweet potatoes (100.0% 2010; 97.4% 2011), and spinach (94.7 % 2010; 100.0% 2011).

Additionally, Spring 2011 FS Surveys show overall increased appreciation on the part of students, as perceived by foodservice staff, for nutrient-rich foods. Eighty percent agreed/strongly agreed students enjoy and consume fruits/fruit juice, skim/reduced milk, and whole grains. Nutrient-rich sweet potatoes, legumes, and spinach were least liked foods at baseline; but were more strongly preferred by follow-up (increases by 13.5%, 20.0%, and 12.5%, respectively; increase in preference for spinach significant at .05 level).



TABLE 1: Food Preference Of Students, As Described By Foodservice Personnel

Item #	Food Preference as Described by Foodservice Personnel, Questions 1-12	Percent Agreeing/Strongly Agreeing		
		Fall 2010	Spring 2011	Change in Percentage from Fall to Spring
1	Children I serve like and eat fruits served at school.	94.7	94.7	0.0
2	Children I serve like and eat vegetables served at school.	73.7	81.6	7.9
3	Children I serve like and eat sweet potatoes served at school.	40.5	54.1	13.5
4	Children I serve like and eat unbreaded and skinless meat items (such as grilled chicken) served at school.	66.7	69.4	2.8
5	Children I serve like and eat whole grain items (such as bread, rolls, wraps, pizza crust, cereal) served at school.	94.7	81.6	-13.2
6	Children I serve like and eat legumes (such as black beans, lentils, kidney beans) served at school.	25.7	45.7	20.0
7	Children I serve like and eat cruciferous vegetables (such as broccoli, cauliflower) served at school.	62.2	64.9	2.7
8	Children I serve like and drink skim or reduced fat milk served at school.	78.9	86.8	7.9
9	Children I serve like and eat fish served at school.	76.3	73.7	-2.6
10	Children I serve like and eat spinach served at school.	28.1	40.6	12.5*
11	Children I serve like and drink 100% fruit juice served at school.	91.9	91.9	0.0
12	Children I serve like and eat a la carte items served at school.	85.3	79.4	-5.9

\*Change in average score from Fall 2010 to Spring 2011 is significant at the .05 level.

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**JPS** Jackson Public Schools  
Elementary Lunch Menu  
September 2010

Lunch Prices:  
Full Price Student.....\$1.00  
Reduced Price Student.....\$.40  
Adult Price.....\$3.00

**Food of the Month:**  
Tomatoes and White Potatoes

A Complete Lunch Includes:  
Choice of:  
2 Fruits and/or Veggies  
1 Bread  
1 Milk

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<b>Choice of One Entrée:</b> 10 10.1 Grilled Chicken 10.2 Grilled Chicken 10.3 Grilled Chicken 10.4 Grilled Chicken 10.5 Grilled Chicken 10.6 Grilled Chicken 10.7 Grilled Chicken 10.8 Grilled Chicken 10.9 Grilled Chicken 10.10 Grilled Chicken 10.11 Grilled Chicken 10.12 Grilled Chicken	<b>Choice of One Entrée:</b> 11 11.1 Grilled Chicken 11.2 Grilled Chicken 11.3 Grilled Chicken 11.4 Grilled Chicken 11.5 Grilled Chicken 11.6 Grilled Chicken 11.7 Grilled Chicken 11.8 Grilled Chicken 11.9 Grilled Chicken 11.10 Grilled Chicken 11.11 Grilled Chicken 11.12 Grilled Chicken	<b>Choice of One Entrée:</b> 12 12.1 Grilled Chicken 12.2 Grilled Chicken 12.3 Grilled Chicken 12.4 Grilled Chicken 12.5 Grilled Chicken 12.6 Grilled Chicken 12.7 Grilled Chicken 12.8 Grilled Chicken 12.9 Grilled Chicken 12.10 Grilled Chicken 12.11 Grilled Chicken 12.12 Grilled Chicken	<b>Choice of One Entrée:</b> 13 13.1 Grilled Chicken 13.2 Grilled Chicken 13.3 Grilled Chicken 13.4 Grilled Chicken 13.5 Grilled Chicken 13.6 Grilled Chicken 13.7 Grilled Chicken 13.8 Grilled Chicken 13.9 Grilled Chicken 13.10 Grilled Chicken 13.11 Grilled Chicken 13.12 Grilled Chicken	<b>Choice of One Entrée:</b> 14 14.1 Grilled Chicken 14.2 Grilled Chicken 14.3 Grilled Chicken 14.4 Grilled Chicken 14.5 Grilled Chicken 14.6 Grilled Chicken 14.7 Grilled Chicken 14.8 Grilled Chicken 14.9 Grilled Chicken 14.10 Grilled Chicken 14.11 Grilled Chicken 14.12 Grilled Chicken

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