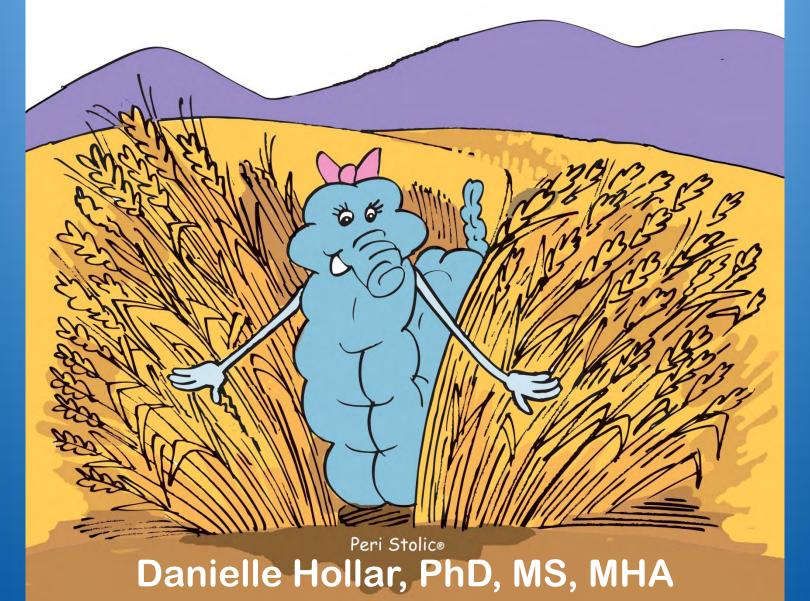
# Why Whole Grains Matter to Kids' Health



# Culture of Wellness: Promoting Good Nutrition and Healthy Living (Socialization/Norm Development)

Physical Activity: Safe place for physical activity
(structured and unstructured)

Nutritious Foods: NSLP provides significant proportion of daily nutrition requirements for many children

Ideal Locale for Systematic Dissemination of Nutrition & Healthy Lifestyle Information: Children, parents, teachers, staff, and foodservice







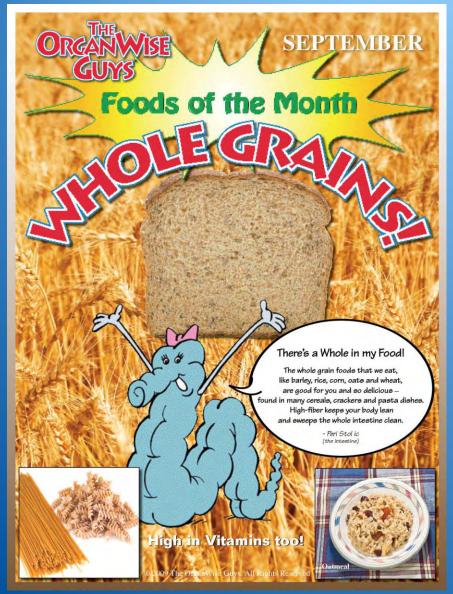
# Meet The OrganWise Guys®

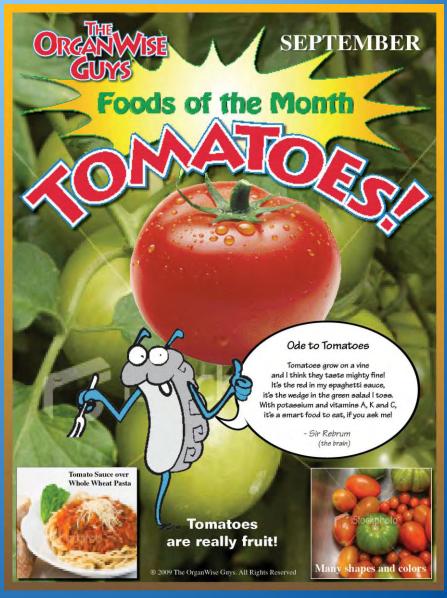


Month	Foods of the Month		
September	Whole Grains	Tomatoes	
October	Apples	Winter Squash	
November	Lean Meats	Sweet Potatoes	
December	Tropical Fruits	Root Vegetables	
January	Cruciferous Vegetables	<b>Dried Beans and Peas</b>	
February	Good Fats	Reduced Fat Dairy	
March	Stems	Fish	
April	Peas	Fresh Beans	
May	Eggs	Spinach	
June	Berries	Peppers	

Λ

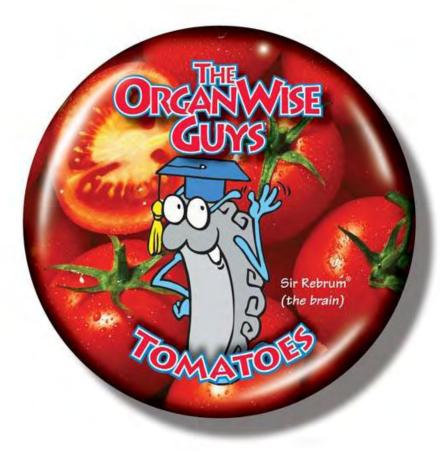
## OWG Foods of the Month Club Monthly Posters





# OWG Foods of the Month Club Buttons for Child Nutrition Professionals





# OWG Foods of the Month Club Clipart for School Menus

16 17 18 Turkey Sub on Whole Wheat Bun Pasta Choice with Pizza with Whole Wheat Crust Hot Ham & Reduced Fat Cheese Lean Meat Sauce Manager's Choice on Whole Wheat Bun Manager's Choice Garden Salad Oatmeal Cookie Lettuce, Tomatoes, Salsa Green Beans Fresh Orange Garden Salad with Spinach 100% Fruit Juice Low Fat or 1% Milk Whole Wheat Rolls Low Fat or 1% Milk Canned Pineapple in Light Syrup Low Fat or 1% Milk 23 24 25 Chili with Reduced Fat Grilled Whole Grain Burrito Pizza with Whole Wheat Crust Cheese on Whole Wheat Bread Manager's Choice Manager's Choice Luncheon Salad Choice Carrot Sticks with Green Beans Reduced Fat Ranch Lettuce, Tomatoes, Salsa Corn Rice & Beans Canned Peaches in Light Syrup 100 % Fruit Juice Low Fat or 1% Milk Fruit Medley Low Fat or 1% Milk Low Fat or 1% Milk

> Whole Wheat Wrap with Salsa Tuna Salad on Whole Wheat Baked Sweet Potato Fries Steamed Broccoli Florets Canned Pears in Light Syrup Low Fat or 1% Milk

Reduced Fat Cheese
Turkey Sandwich on <u>Whole Wheat</u>
Luncheon Salad Choice
Lettuce & <u>Tomatoes</u>
<u>Salsa</u>
Black Beans

Canned Fruit Mix in Light Syrup Low Fat or 1% Milk Reduced Fat Cheese on <u>Whole Wheat Bun</u> Egg Salad on <u>Whole Wheat</u> Luncheon Salad Choice Corn California Blend Canned Peaches in Light Syrup

Low Fat or 1% Milk

Lean Meat Sauce Manager's Choice Luncheon Salad Choice Green Beans Garden Salad with Spinach Whole Wheat Rolls Fresh Peach Low Fat or 1% Milk

# OWG Foods of the Month Club Clipart for School Menus

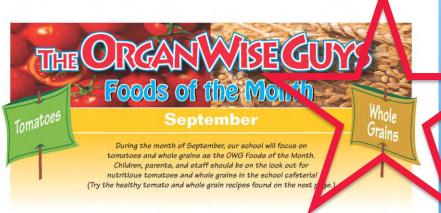
### **COUNTY SCHOOL DISTRICT**

**Breakfast Cycle** 



MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Assorted Cereal  Whole Wheat Toast  Whole Wheat Coated  Chicken Nuggets  Boiled Eggs  Juice or Fruit  Milk	Assorted Cereal  Whole Wheat Toast Whole Wheat Cheese Toast Juice or Fruit Milk	Assorted Cereal <u>Whole Wheat</u> Toast  Scrambled Eggs  Turkey Canadian Bacon  Juice or Fruit  Milk	Assorted Cereal  Whole Wheat Toast Breakfast Sandwich (Egg & Cheese on Whole Wheat Bun) Juice or Fruit Milk	Assorted Cereal Graham Crackers Breakfast Breaks Juice or Fruit Milk

## **OWG** Foods of the Month Club Website: FoM Adult Newsletters



Tomatoes are one of the most popular "vegetables" eaten by Americans, Tomatoes, however, are actually members of the fruit family, but most people consider them vegetables. They are high in vitamins C, A, and K. Tomatoes contain large amounts of an antioxidant called lycopene, which may help guard against certain cancers. Tomato paste and sauces, which contain highly-concentrated, cooked tomatoes, have a greater amount of healthy lycopene than raw tomatoes.

Varieties - Did you know there are thousands of types of tomatoes?! The most popular kinds are classified into three groups; cherry, plum, and slicing tomatoes. Grape and cherry tomatoes are fun, sweet, and really delicious to eat alone or in a salad!

Selection - Cold temperatures can damage tomatoes, so avoid buying ones that are stored in a cold area and do not to put them in your refrigerator unless you cannot eat them soon.

Pick plump tomatoes that have smooth skin with no bruises, cracks or blemishes.

Encourage your kids to eat a nutritious OrganWise breakfast and lunch at school every day!

Whole grains are unprocessed grains such as wheat, corn, rice, oats, barley, quinoa, sorghum, spelt, and rye. The word "whole" in front of a particular grain means that the grain is in its "whole" form and thus has not been refined, which is the process that removes the bran and germ from the grain. Refining a grain makes it less healthy because it removes dietary fiber, iron, and many vitamins. So, when choosing bread products, cereals, rice, and pasta, look for the whole grain varieties because eating whole grains has been shown to reduce the risks associated with obesity, including heart disease, stroke, cancer and diabetes.

Because food labels are very confusing when it comes to whole grains, be sure to read the ingredient list on the package to make sure the word "whole" is listed with the first ingredient (example: whole wheat flour).



### These are yummy recipes!

#### SIMPLE CORN SALSA Goes great with grilled meat! es 4 servings

- 2 chopped tomatoes or 1 can chopped tomatoes
- 2 tsp. extra virgin olive oil I cup fresh corn kernels (or I small can, draine
- 1/8 tsp. sugar
- Salt and pepper to taste 4 tsp. balsamic vinegar
- 1/4 cup finely chopped red onion
- 1/4 cup chopped cilantro leaves 1 jalapeño pepper, or to taste

Heat the oil in a skillet over medium heat. Add c and cook for 2 minutes. Add sugar, salt and pepp and cook for another minute. Add vinegar and co for 1 more minute. Transfer the corn into a small bowl and cool slightly. Stir in the tomatoes, onion, cilantro and jalapeño pepper. Serve with grilled chicken, beef or pork. Salsa can be made in advance and stored in the refrigerator for up to 2 days.

Adapted from: http://www.foodfit.com/recipes/recipe.asp?rid=1641



**TOMATO & VIDALIA ONION SALAD - VERY** EASY & HEALTHY! Makes 4 servings

- 3 large ripe tomatoes, sliced
- 2 Vidalia or other sweet onions, thinly sliced
- Vinegar or vinaigrette to taste

Place tomato slices on large platter, then put onion slices on top of tomatoes. Drizzle with your favorite vinaigrette.

Adapted from: Beyond Gumbo: Creole Fusion Food from the Atlantic Rim. 2003. Harris. Simon & Schuster.

#### WHOLE GRAIN PITA PIZZA Makes 2 servings

2 round whole wheat pitas 3/4 cup (~6 ounces) tomato 1/4 cup part-skim shredded spaghetti sauce

1 cup chopped vegetables (onions, peppers, mushroom

spinach, olives - your choice!) spinacit, otives - your choice;) Extra virgin olive oil or canola oil

Preheat oven to 350°F. Lay pitas on a flat surface. Spread 1/2 of the sauce

on each pita round. If you are using chopped fresh spinach, add it now, before the cheese, so it won't dry out too much. Top each with cheese, and then vegetables. Drizzle with oil. Bake at 350°F for 15 minutes on cookie sheet.

Adapted from: http://www.wholegrainscouncil.org/pdf/DozenEasyWGRecipes.j

#### EAT MORE WHOLE GRAINS!

Substitute whole-grain products for refined products. Make sure "whole" is listed before the first ingredient. Try stone-ground whole wheat bread instead of white bread; whole wheat hotdog buns;

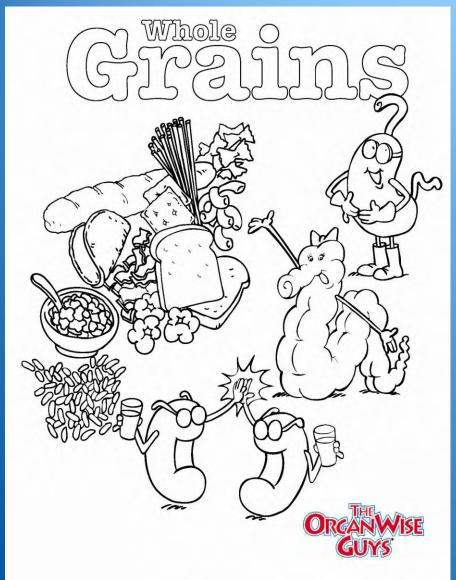
whole wheat pasta instead of regular pasta; or brown rice. It's important to substitute the whole-grain product for the refined ones.

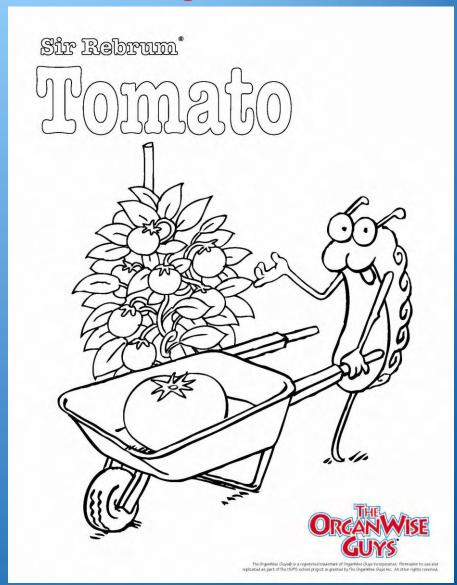
Try an unsweetened. whole grain cereal, or croutons on your salad, or in place of crackers with soup.

Popcorn, a whole grain, can be a healthy snack with little or no added salt and butter. But remember to read the label on packaged popcorn so you don't get too much fat and sodium in this healthy snack!

Adapted from: http://www.mypyramid.gov/pyramid/grains\_tips.html

# OWG Foods of the Month Club Website: FoM Student Activity Packets





# OWG Foods of the Month Club Website: Links to USDA Nutrition Materials for Children

### WORD SCRAMBLE-WHOLE GRAINS

#### **Grab Some Grains!**

Unscramble the words and place the correct spelling in the boxes. Copy the letters from the numbered boxes into the

boxes at the bottom of the page with the same number to decode the hidden message.

NRAB	11
PCNROPO	10
NRBOW ICER	13 12
LEISUM	14
ЕКАШТВНСИ	
HOEWL TEWAH ABDER	4 3 8
TEAMALO	6 7
LEWOH NIAGR YABELR	5 9 1
1 2 3 4 5 6	7 8 9 10 11 12 13 14

See page 35 for answers.

## OWG Foods of the Month Club Website: Links to USDA Nutrition Materials for Parents

### Make Half of Your Grains Whole

Whole grains contain the entire grain kernel: the bran, germ, and endosperm.

shredded wheat cereal

#### Whole grain kernel Some Examples of Whole Grains: Bran Endosperm brown rice Whole Grain Tips-"Outer shell" Provides energy Check the ones you already do: protects seed Carbohydrates, buckwheat Fiher Bprotein vitamins. Choose a whole grain, such bulgur (cracked wheat) trace as oatmeal, when you have oatmeal hot cereal. popcorn Read the label on a cereal box to find the word "whole" listed whole-wheat cereal with the first ingredient. muesli For a change, try brown rice or whole-grain barley whole-wheat pasta. whole-grain commeal When baking, substitute whole-Germ wheat or oat flour for up to half of whole rye Nourishment the flour in a recipe. for the seed whole-wheat bread Antioxidants, vitamin E, Eat whole-grain crackers. **B**-vitamins whole-wheat crackers Once a week or more, try a whole-wheat pasta lowfat meatless meal or main dish whole-wheat sandwich buns and rolls that features whole grains (such as red beans and brown rice). whole-wheat tortillas wild rice whole cornmeal

# OWG Foods of the Month Club Website: Links to USDA Nutrition Materials for Child Nutrition Professionals



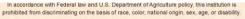
### **Fact Sheet**

Month	Foods of the Month		USDA Product Codes	
September	Whole Grains Bread, flour, brown rice, pasta	Tomatoes	Whole Grain Pastas (B428, B836) Rice, Brown, Long-Grain Parboiled (B537, B538) Rice, Brown 25 (B545) Whole Wheat Flour (B351, B360) Oats 3, Rolled (B445) Oats 25, Rolled (B444) Oats 50, Rolled (B450)	
			Tomato Paste, Canned (A252) Tomato Sauce, Canned (A239) Tomatoes, Canned, Diced (A241) Salsa, Canned (A237) Tomatoes ONLY For Processing Tomato Totes (A254) Tomato Paste, Drum (A249)	



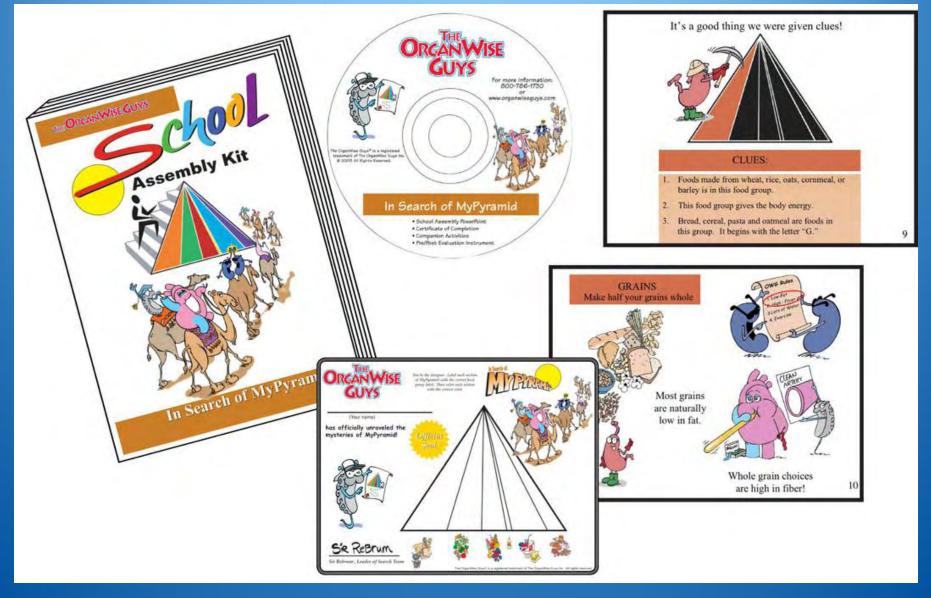








# OWG Foods of the Month Club In Search of MyPyramid Assembly Kit



### Peri Stolic



Food tasting led by Sodexo
Foodservice Director Rick Herwaldt
in Batavia, IL



## Foods of the Month Tasting Events



Food tasting led by University Extension
Nutrition Educator Bonnie Rowe
in St. Johns County, FL

Food tasting at Ojus Elementary, including School Board Member Dr. Martin Karp, in Miami-Dade, FL

Foods of the Month Tasting Events



Whole grain bread, olive oil, broccoli, and black bean and tomato tasting event at The Cushman School in Miami, FL



Foods of the Month for sale at Cushman School Farmer's Market







# Foods of the Month Cafeteria Cards





**School Gardens** 

# cheering for broccoli



Led by Univ. of FL St. Johns County Extension and 4-H High School Students!! **Healthy Cafeteria** 

**Sunrise Elementary** 

USDA HealthierUS
Silver Award



USDA FNS Chief of Staff Eric Steiner, FL Dept. of Education Food & Nutrition Management Administrator Cathy Reed, and Dr. Danielle Hollar visit Sunrise Elementary during the USDA HealthierUS Silver award celebration!

### Food, Nutrition and Consumer Services















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- ▶ Programs & Services

You are here: FNCS Home > In the Picture

### In the Picture

### Healthier Options for Public Schoolchildren (HOPS)









## The OrganWise Guys

Department of Health and Human Services (DHHS) Secretary's Innovation in Prevention Award

Gold Rating
by The Cooper Institute
and The Michael and
Susan Dell Foundation



# Healthier Options for Public Schoolchildren (HOPS) Study & The OrganWise Guys



### Danielle Hollar, PhD, MHA, MS

Agatston Research Foundation;
Department of Medicine
University of Miami Miller School of Medicine
Principal Investigator

### Arthur S. Agatston, MD

Agatston Research Foundation;
Department of Medicine
University of Miami Miller School of Medicine
Co-Principal Investigator

### Michelle Lombardo D.C.

The OrganWise Guys Inc. *Collaborator/Intervention Tools* 

### Sarah E. Messiah, PhD, MPH

Department of Pediatrics, Division of Pediatric Clinical Research
University of Miami School of Medicine
Director, HOPS Data Coordinating Center

Marie Almon, MS, RD

Nutrition Director

T. Lucas Hollar, PhD

Data Manager

Caitlin Heitz
Research Assistant



research education prevention

# Healthier Options for Public Schoolchildren (HOPS) Study

### **HOPS Aim**

Test a set of interventions in the elementary school setting including:

nutrition & healthy lifestyle education,

modeling of education via school menus,

and increased physical activity

\*\*\* Feasible, Replicable, & Effective \*\*\*

# HOPS Design 2008-9

53

Research Schools (~23,951 Children)

80

Elementary Schools (~34,724 Children)

Florida
Illinois
Indiana
Mississippi
New York
North Carolina

**West Virginia** 

27

Program Schools (~10,773 Children)

28

(including 16 elementary; 4,183 children)

After-School Sites Florida only

## **HOPS Nutrition Standards**

- Meet age-appropriate nutrient standards based on Recommended Dietary Allowances (RDAs)
- Follow the <u>USDA 2005 Dietary Guidelines for</u>
   <u>Americans</u> that emphasize:

- Fruits, vegetables, and whole grains
- \*Quality\* of calories matters, not reduction of calories
- Balancing calories in and calories out is key



## **Dietary Intervention Results**

### Intervention Breakfast v. Control Breakfast

Fats: 26.2% less total fat

20.7% less saturated fat

Dietary Fiber: 2.8 times more dietary fiber

Intervention Lunch v. Control Lunch

Fats: 29.9% less total fat

21.8% less saturated fat

Dietary Fiber: 15% more dietary fiber

**American Dietetic Association** Food & Nutrition Conference & Expo, Sept. 2006, Honolulu, HI; Annual Nutrition Conference of the **School Nutrition Association**, July 2006, Los Angeles, CA.

### **Dietary Intervention Results: Fiber**

### **Breakfast**

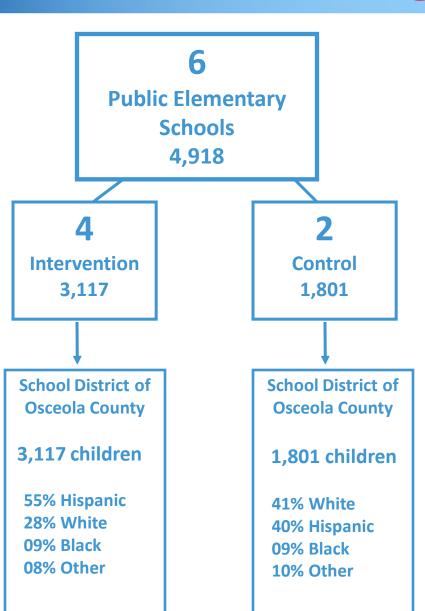
- Daily servings of whole grain breads and cold cereals in place of white/refined flour breads and high-sugar/non-whole grain cereals
- Servings of whole grainbreaded chicken nuggets instead of white/refined flour- breaded chicken nuggets

### Lunch

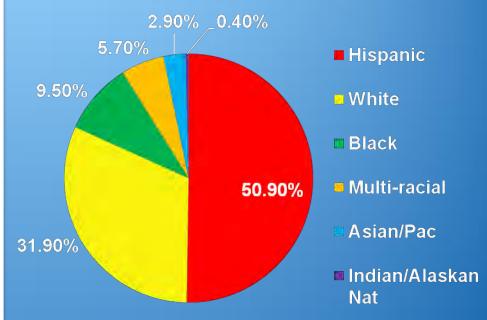
- Daily servings of whole grain breads
- Serving only whole grain pizza, corn dogs with whole grain coating, and chicken nuggets with whole grain breading
- More frequent servings of whole, fresh fruits instead of canned fruits
- More frequent servings of salads and vegetables

**American Dietetic Association** Food & Nutrition Conference & Expo, Sept. 2006, Honolulu, HI; Annual Nutrition Conference of the **School Nutrition Association**, July 2006, Los Angeles, CA.

# **HOPS Design (2004-2006)**







58.7% qualify for <u>Free or Reduced Priced</u>
<u>Meals</u> in the United States Department of Agriculture (USDA) National School Lunch Program

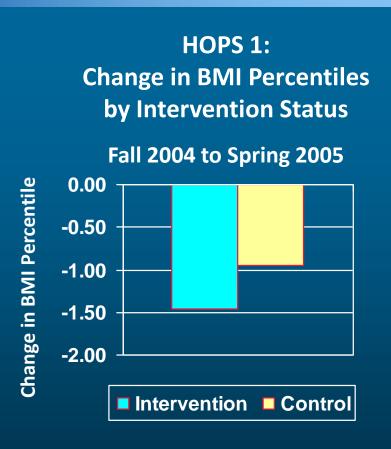
Percentages not equal 100 in all cases due to rounding.

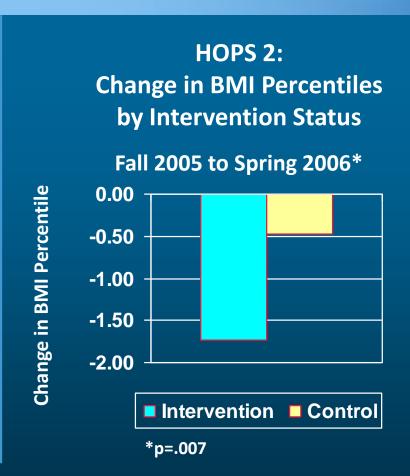
# Why BMI Percentile vs. BMI?

Weight measure for children

Takes into consideration a child's normal body fatness, which changes as the child matures

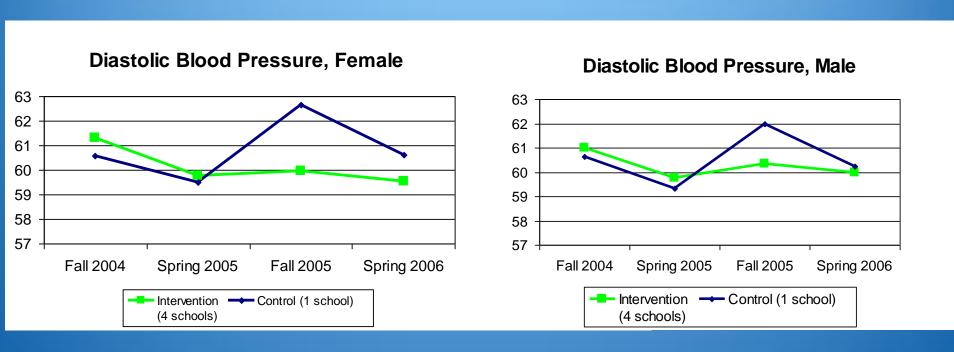
# HOPS 1 & HOPS 2: BMI Percentile Change





47th American Heart Association (AHA) Annual Conference on Cardiovascular Disease Epidemiology and Prevention Feb 28 - Mar 3, 2007

### Diastolic Blood Pressure Results



57<sup>th</sup> Annual Meeting of the **American College of Cardiology**, 2008

# HOPS 1 & HOPS 2: Academic Improvement

Group	Academic Test Score	Treatment (# of Schools)	2004-2005	2005-2006	P-value (Fall 04- Spring 06)
All	FCAT-Math	Intervention (4 schools)	296.40(59.26)	307.94(51.25)	0.0005
		Control (1 school)	285.46(53.82)	276.15(60.91)	0.0003
	FCAT-Reading	Intervention (4 schools)	291.32(59.76)	292.43(57.70)	0.08
		Control (1 school)	279.92(65.72)	281.73(55.77)	
Hispanic	FCAT-Math	Intervention (4 schools)	290.79(62.44)	303.40(52.67)	0.0062
		Control (1 school)	281.21(59.78)	270.13(67.63)	0.0062
	FCAT-Reading	Intervention (4 schools)	284.73(61.56)	288.22(57.69)	0.09
		Control (1 school)	269.87(72.08)	276.77(58.10)	0.00
White	FCAT-Math	Intervention (4 schools)	319.84(43.53)	330.84(39.70)	0.016
		Control (1 school)	304.74(29.13)	299.74(36.56)	0.010
	FCAT-Reading	Intervention (4 schools)	319.98(43.37)	315.47(54.64)	0.16
		Control (1 school)	306.37(45.10)	294.68(53.88)	0.10
Black	FCAT-Math	Intervention (4 schools)	306.79(46.41)	311.48(41.53)	0.04
		Control (1 school)	264.80(52.16)	267.60(44.13)	0.04
	FCAT-Reading	Intervention (4 schools)	302.12(51.21)	294.87(53.29)	0.53
		Control (1 school)	287.80(54.56)	279.60(33.21)	3.30

**2008** Annual Scientific Meeting of The Obesity Society

## **Healthy, Smart Results!**

- The OrganWise Guys/HOPS nutrition and healthy lifestyle education (including both nutrition and physical activity components) combined with role-modeling by school foodservice staff produce statistically significant results:
  - **Weight measures** significant improvements in body mass index z scores and weight z scores of intervention v. controls.
  - **Blood pressure measures** significant improvements in intervention children v. controls.
  - **Academic achievement scores** were significantly higher for intervention children v. controls.
- Health and academic improvements are especially strong in low-income children
- Structured physical activity enhances results
- Special attention needs to be placed on identifying effective interventions for black children
- Prevention models should consider including summer programming

# Results Presented at Professional Meetings

American Academy of Pediatrics National Conference & Exhibition American College of Cardiology Scientific Sessions American Dietetic Association, Food & Nutrition Conference and Exposition American Heart Association, Scientific Sessions American Heart Association, Annual Conference on Cardiovascular Epidemiology and Prevention American Public Health Association Annual Meeting & Exposition CDC/DHHS National Prevention Summit FL After School Alliance Annual Meeting FL School Health Association Annual Conference Galaxy III Educational Programs (University Extension) National School Board Association Annual Conference

**Obesity Society Annual Scientific Meeting** 

**USDA National Leadership Summit** 

School Nutrition Association Annual Nutrition Conference

Society for Nutrition Education Annual Conference

## OrganWise Guys Partnerships:

Creating the conditions for success that all children need to thrive

### **Government Partners:**

School Boards and Superintendents, elementary school principals, staff, foodservice departments, and especially children

Area Health Education Centers (FL Keys)

State Departments of Education and Agriculture

State Departments of Public Health

United States Department of Agriculture (federal, regional, local affiliates)

United States Department of Health and Human Services

University Extension (Nutrition Educators, 4H Leaders and High School Students, Master Gardeners)

### **Private Partners:**

Blue Foundation for a Healthier Florida

Health Care Service Corporation (Blue Cross Blue Shield of IL, NM, OK, & TX)

Health Foundation of South Florida

Mississippi Food Network

The Oliver Foundation

Organic Gardening (magazine)

Sodexo

W. K. Kellogg Foundation

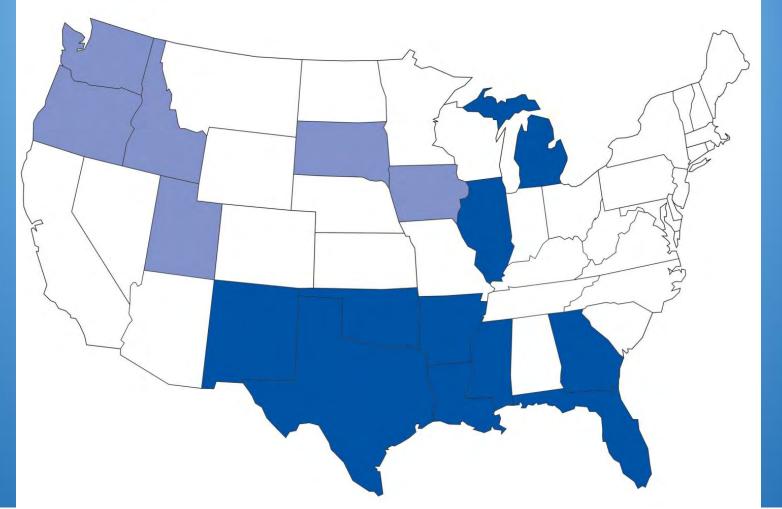
And many more! (hopefully you!)

Delta HOPE/OWG Projects funded by the W. K. Kellogg Foundation

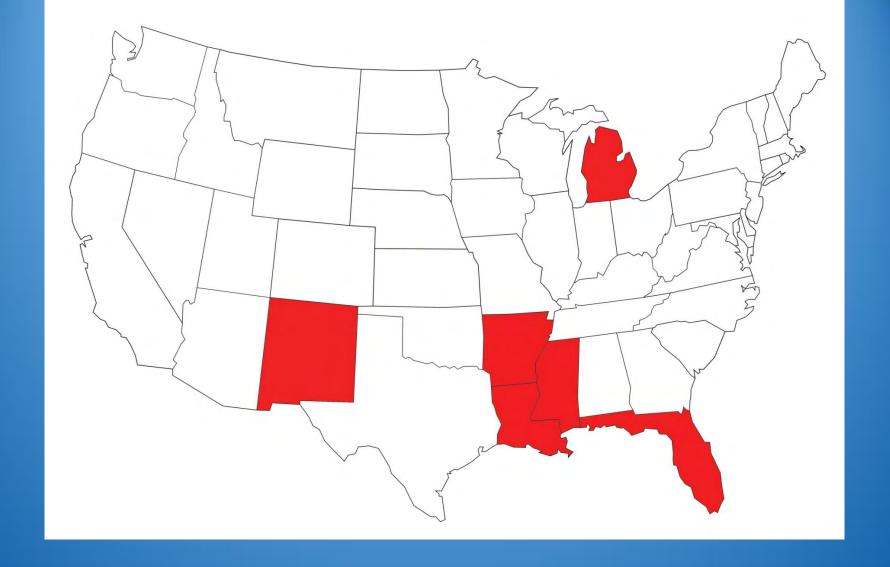


\$1.57 Million 4-Year W.K. Kellogg Foundation Delta HOPE (MS, LA, AR, NY)

\$2 Million W.K. Kellogg Foundation Katrina Relief Grant (MS, LA, TX, FL)



\$1.8 Million Initiative 5-Year (BCBS of Louisiana Foundation/LSU AgCenter) \$250,000+ Initiative (BCBS of Mississippi Foundation/Mississippi State) \$900,000 3Initiative (WellPoint, HealthMPowers GA) \$100,000 Initiative (Blue Foundation for a Healthier Florida) \$250,000 originally, now \$1 Million+ 5-year project Four-State Initiative (Health Care Services Corp. TX, NM. IL, OK)



# NEW 6-State \$2 Million W.K. Kellogg Foundation grant

## OrganWise Guys Partnerships:

Creating the conditions for success that all children need to thrive

### **University Partners:**

Louisiana State University AgCenter

Marshall University (WV Extension)

Michigan State University Extension

Mississippi State University Extension

New Mexico State University Extension

Purdue University Extension (pending)

TX A&M University; Institute for Obesity Research and Program Evaluation

**University of Arkansas Extension** 

University of Florida Department of Consumer and Family Sciences (Extension)

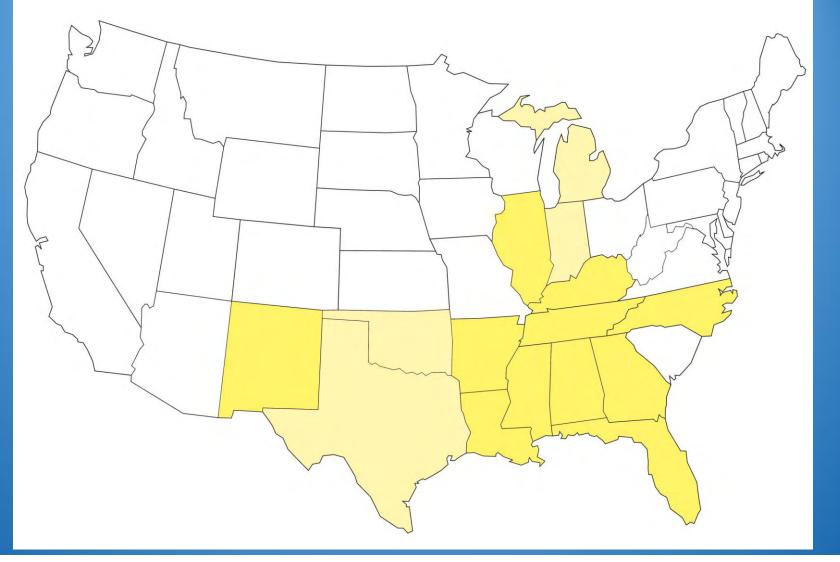
University of Miami Miller School of Medicine, Dept. of Clinical Pediatrics

USDA Supplemental Nutrition Assistance Program (SNAP)
Education

+

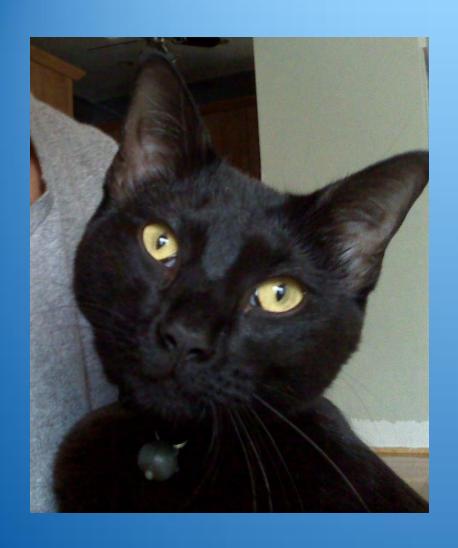
University Extension-School Partnerships

Sustainable Nutrition and Healthy Lifestyle School-based Programming



USDA Supplemental Nutrition Assistance Program (SNAP) Education Dark Yellow – ongoing

Light Yellow- putting in plan upcoming year!





# The OrganWise Guys Comprehensive School Program

For more information contact:

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DanielleHollar@gmail.com

Dr. Michelle Lombardo Michelle@organwiseguys.com

