


Lowering Sodium in the School Food Environment is Elementary: Successful Strategies from the Broome County Sodium Reduction in Communities School Project



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Prevention and Wellness Across the Life Span
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Sodium in School Meals and in the Local Food Environment

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Presenter Disclosures

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The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

Broome County, New York

- Population 195,000
- Mean household income \$41,520
- 13.8 % individuals living below poverty level
- 23 % children living below poverty level
- 91% White
- 3.3 % African American
- Adult Obesity 61.9%
- Youth Obesity 24.7%
- Adult Hypertension 30.9%
- Significant racial health disparities
- High premature death rates from all cardiovascular diseases


Sources: NYS Vital Records 2005-2007, Broome County CHA 2010, BRFSS Survey 2008-09, Broome County Steps YRBS 2007, New York State Prevention Quality Indicators 2011

Broome County Sodium Reduction in Communities Project

- 3-year Sodium Reduction in Communities Program funded by the Centers for Disease Control and Prevention (CDC)
 - One of 5 funded communities
- Coordinated by the New York State Department of Health
- Currently in Year 3
- Sectors / locations:
 - Community: Grocery Stores & Senior Meal Nutrition Sites
 - Schools: Elementary Schools

Specific Elementary School Goal:

- Reduce sodium content in school lunch meals






CDC-funded Sodium Reduction in Communities, 2010

CENTERS FOR DISEASE CONTROL & PREVENTION SODIUM REDUCTION IN COMMUNITIES PROGRAM

To learn more about this program, visit the CDC website: http://www.cdc.gov/dhdsp/programs/sodium_reduction.htm

Sodium Content in Food Items

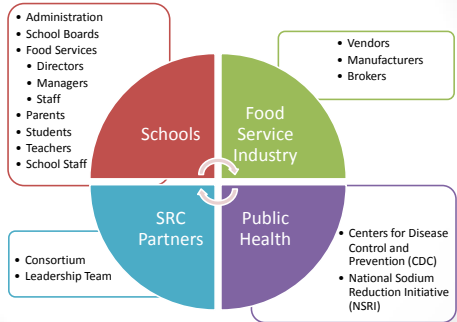
SANDWICH		SODIUM (mg)
Chicken Spiedie Sub		1096
Ham & Cheese		1054
Turkey & Cheese		900
Grilled Cheese		688
Tuna		679
Peanut Butter & Jelly		405

CONDIMENT		SODIUM (mg)
Mustard		227
Mayonnaise		118
Ranch Dressing		161
Italian Dressing		143

Top Sources of Sodium

- Breads & rolls
- Cold cuts & cured meats
- Pizza
- Poultry
- Soups
- Sandwiches
- Cheese
- Pasta dishes
- Meat dishes
- Snacks

Stakeholders



- Schools**
 - Administration
 - School Boards
 - Food Services
 - Directors
 - Managers
 - Staff
 - Parents
 - Students
 - Teachers
 - School Staff
- Food Service Industry**
 - Vendors
 - Manufacturers
 - Brokers
- SRC Partners**
 - Consortium
 - Leadership Team
- Public Health**
 - Centers for Disease Control and Prevention (CDC)
 - National Sodium Reduction Initiative (NSRI)

BT-BOCES Food Services

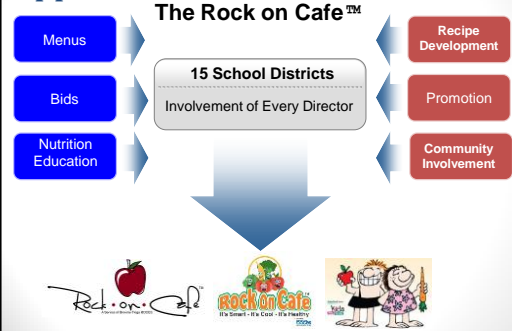
- Includes rural, suburban, and urban areas
- 15 School districts: 12 school districts in Broome County & 3 school districts in Tioga County
- ~45 elementary schools
- Range in size from 640 to 6,000 students
- Serve approximately 20,000 lunches & 8,000 breakfasts across all grade levels daily
- School districts range from 17% to 70% in free/reduced meals

Central Administration:
 1 Senior Food Service Director, 2 Food Service Directors, Special Projects Coordinator, Registered Dietitian



Local School Administrators:
 15 managers, ~400 food service staff

Broome & Tioga Counties Approach



Intervention Activities - YR 01

SEPT	OCT	NOV	DEC	JAN	FEB
• Recipe group meeting	• NYSNA Conference & Expo (food show)	• State audits	• Recipe group meeting	• Recipe group meeting • Manager's meeting • Food show in Vestal	• Recipe group meeting • Direct diversion meeting
MAR	APR	MAY	JUN	JUL	AUG
• Recipe group meeting • Taste testing in schools (two recipes)	• CDC Site visit • Taste testing in schools	• Recipe group meeting	• Director meeting	• SNA National Conference (food show)	• Recipe & promotion group meeting • Bakery visits • MGM Food show

Key Elements

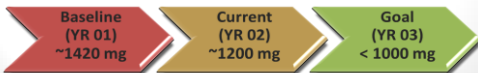
- Nutrition Baseline
- Procurement System
- Vendor Shows
- Menu Planning
- Recipe Development
- Taste Testing
- In-Services for Staff



Nutrition Analysis



- Nutrikids® software [<http://www.nutrikids.com/>]
- Enter ingredients (some nutrition information in database; some entered manually)
- Create recipe
- Create monthly menu for recipes
- Analyze data by day with estimated projections for menu items selected by students
- Calculate monthly average for sodium content per lunch meal



Nutrition Analysis

Sodium Content weighted based on estimated number of children who select item

Recipe Name	Portion Size	Reimburse	Ata Carte	CALS	mg Sodm	Tot Fat Grams	Tot Fat CALS%
1 Pizza, Cheese WW Individual 6"	1 Pizza	65	0	310	440	12.0	34.8%
2 Salad, Romaine	1 1/4 cup	75	0	10	0	0.2	15.9%
3 Chickpeas	1/4 cup	40	0	53	16	1.2	19.9%
4 FRUIT FRESH ASSORTED	1 Fruit	35	0	69	0	0.2	3.0%
5 Fruit Juice Mix - Sun Cup	4 oz	40	0	64	0	0.0	0.7%
6 Yogurt Meal (soft pretzel)	Meal	25	0	315	29	7.1	20.3%
7 Peanut Butter and Jelly ROC	Sandwich	5	0	390	42	17.0	39.2%
8 Tuna Sandwich ROC	1 Sandwich	5	0	295	67	9.5	29.0%
9 Milk, Skim, Byrme Dairy	8oz carton	10	0	80	125	0.0	0.0%
10 Milk, 1%, Byrme Dairy	8oz carton	10	0	100	145	2.0	16.0%
11 Milk FT Chocolate Byrme Dairy	8oz carton	80	0	130	240	0.0	0.0%
12 Mayonnaise, Light	5 oz	40	0	47	118	4.3	81.0%
13 Ranch, Lite, Ken's	5 oz	40	0	38	181	3.3	78.7%
14 Italian Dressing - Lite Ken's	5 oz	40	0	17	152	1.2	64.3%
15							
Total				555	871	15.3	24.8%

* asterisk denotes nutrients with either missing or incomplete nutrient data.
 **NA - denotes a nutrient that is missing or incomplete for an individual ingredient.

Key Strategies in Action

- Reformulation** 760 mg → 440 mg per serving
 - Individual Round Pizza: Reformulate crust
- Substitution** 1167 mg → 688 mg per serving
 - Grilled Cheese Sandwich: Substitute low sodium for regular cheese
- Reduce Portion Size** 960 mg → 480 mg per serving
 - Tomato Soup: Reduce serving size from 8 oz to 4 oz
- Offer More Fresh** 71 mg → 0.5 mg per serving
 - Green Beans: Use fresh or frozen instead of canned
- Remove From Menu** 1161 mg → 367 mg per serving
 - Ham & Cheese on a Pretzel Roll: Now serving munchables

Procurement

Award will be made on an item by item basis and consideration of award will be given to specifications, pricing, acceptance, nutritional contribution and sodium comparison will be taken into consideration.

BC Specification Cooperative Group Bid

1. There shall be no, binding, non-competitive and bid-award strategy fully prepared by the successful bidder to facilitate fulfillment of the program for each participating district. In any case, this shall not preclude the bidder from submitting a proposal.

2. All bids must be sealed. They may be submitted either in a plain envelope or in those furnished by the school district. Bid envelopes must be clearly marked with name of bid, contract number, date and name of the bid opening as indicated on Notice to Bidders. Bids must be submitted in an original unopened envelope. Unopened envelopes or communications will not be accepted at any time.

- AWARD**
1. Awards will be made to the lowest responsible bidder, or will best protect the public interest.
 2. Awards will be made within thirty (30) days after the date of the bid opening during which period bids may not be withdrawn unless the bidder distinctly states in his bid that acceptance thereof may be made within a clearly specified time.
 3. Notice of award will be rendered to successful bidder at address given in the bid.
 4. After award, it is the responsibility of the successful bidder to secure necessary arrangements with the school board member of each district prior to any deliveries.
 5. Award will be made on an item by item basis and consideration of award will be given to specifications, pricing, acceptance, nutritional contribution and sodium comparison will be taken into consideration.
 6. Award shall be given a first and second place award based on specifications and price. Vendor agrees to have second award for bid period.

BC Specification Cooperative Group Bid

Food Vendor Shows

BROOME-TIOGA boces
Bringing Lives Through Education

224 Robinson Street, Binghamton, NY 13904
Food Service Department
(607) 766-8920 Fax: (607) 771-4133

June 21, 2011
To: School Food Service Directors

From: Mark Besterman, Senior Director of Food Services & Alan Tucker, RD, CDEP

On August 31, 2011 Broome-Tioga BOCES Food Service will be holding a food show at Venable High School between 11:00am-2:00pm. Each of the 11 school districts under the BOCES umbrella will be represented as well as staff from the schools to be served. Each food vendor will have space to promote their items.

Broome-Tioga BOCES Food Service and Rock on Cafe™ is partnering with the Center for Disease Control (CDC) and the Broome County Health Department for the National Sodium Reduction Initiative (NSRI) to reduce sodium in school meals and snacks over the next three years. All items for this show must meet the following nutritional criteria:

- Entrée items must be less than 300mg of sodium
- Non-entrée items must be less than 10% of sodium
- No trans fats
- Please keep in mind our menus must be 30% or less in fat and 10% or less in saturated fat
- Snack items must meet the HealthierUS Schools snack guidelines

If you are interested in being a part of this food show, please contact us at (607) 766-8920.



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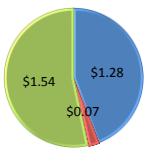
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Vendor Food Shows



Menu Planning

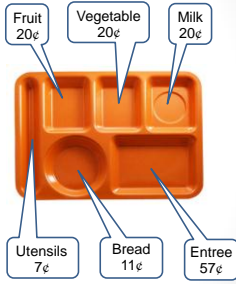
School Lunch Meal Costs



Average Total Cost = \$2.89

Category	\$ Rate *
Free/Reduced	2.94
Self Pay	2.50

* For School Districts with > 60% Free/Reduced



Recipe Development

- Recipe Team
- Current Focus
 - Low Sodium items
 - Dark Green Vegetables
 - Orange Vegetables
 - Legumes
 - Whole Grains
- Kid Test Tasted!



Taste Testing



**152 Yes
48 No**

In-services for Administrators and School Food Service Staff

- Provided in-service for Broome County School Administrators on Broome County's Sodium Reduction targets for schools.
- Provided an in-service for food service directors and food service staff Broome County's Sodium Reduction Campaign and sodium reduction targets for schools.



New Items Selected

- Reduced Fat/Reduced Sodium Taco Meat
- Reduced Fat/Reduced Cheese
 - Grilled Cheese & Deli Sandwiches
- Fruit and Yogurt Munchable
- Yogurt Meal
- Fruit & Yogurt Parfait
- Beef Burger Patty
- Pizza products
- Spaghetti Sauce
 - Low sodium mixed with regular
- 8 pc Roasted Chicken



Unacceptable Products To Date


- Unbreaded Chicken Breasts
- Low Sodium Tomato Soup
- Reduced Fat/Low Sodium Mac and Cheese
- Lower Sodium Pizzas
- Low Sodium Spaghetti Sauce
- Asian Chicken



Barriers

- Higher Cost of Lower Sodium Products
 - **Tomato Soup**
6oz Reg 12¢ → 6oz LS 42¢
→ 6oz LS Mixed 27¢
 - **Grilled Cheese Sandwich**
Reg 37¢ → S RF 56¢

This is a 51% increase in cost!
- Lack of Lower Sodium Products
- Student Acceptability
- Naturally Occurring Sodium
 - **Skim Milk**
125mg per 8 oz serving



Achieving Sustainability

Organizational routines	Institutionalized standards	Processes specific to sustainability
<ul style="list-style-type: none"> • Organizational memory • Flexibility & adaptability • Values and rules 	<ul style="list-style-type: none"> • Standardized menus 	<ul style="list-style-type: none"> • Centralized resources for purchasing, planning, analyzing

Keys to Success

- Commitment to larger goal of providing nutritious food items and quality
- Soliciting support from school districts at all levels and engaging key stakeholders from schools and community
- Capitalizing on existing programs

We've Cut Over a Ton of Salt!

YEAR 01 • 1500 → 1350 mg	+	YEAR 02 • 1350 → 1200 mg	=	TO DATE • Total → 300 mg
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300 mg per meal per day
x **20,000 meals**
x **180 days**
→ **Convert mg to lbs**

**= 2381 pounds
in 2 years**

Questions

BROOME COUNTY SODIUM REDUCTION IN COMMUNITIES PROJECT

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