

The US National Salt Reduction Initiative Approach to Lowering Sodium Intake



CNS Annual Meeting
June 5, 2010

Sonia Angell, MD MPH

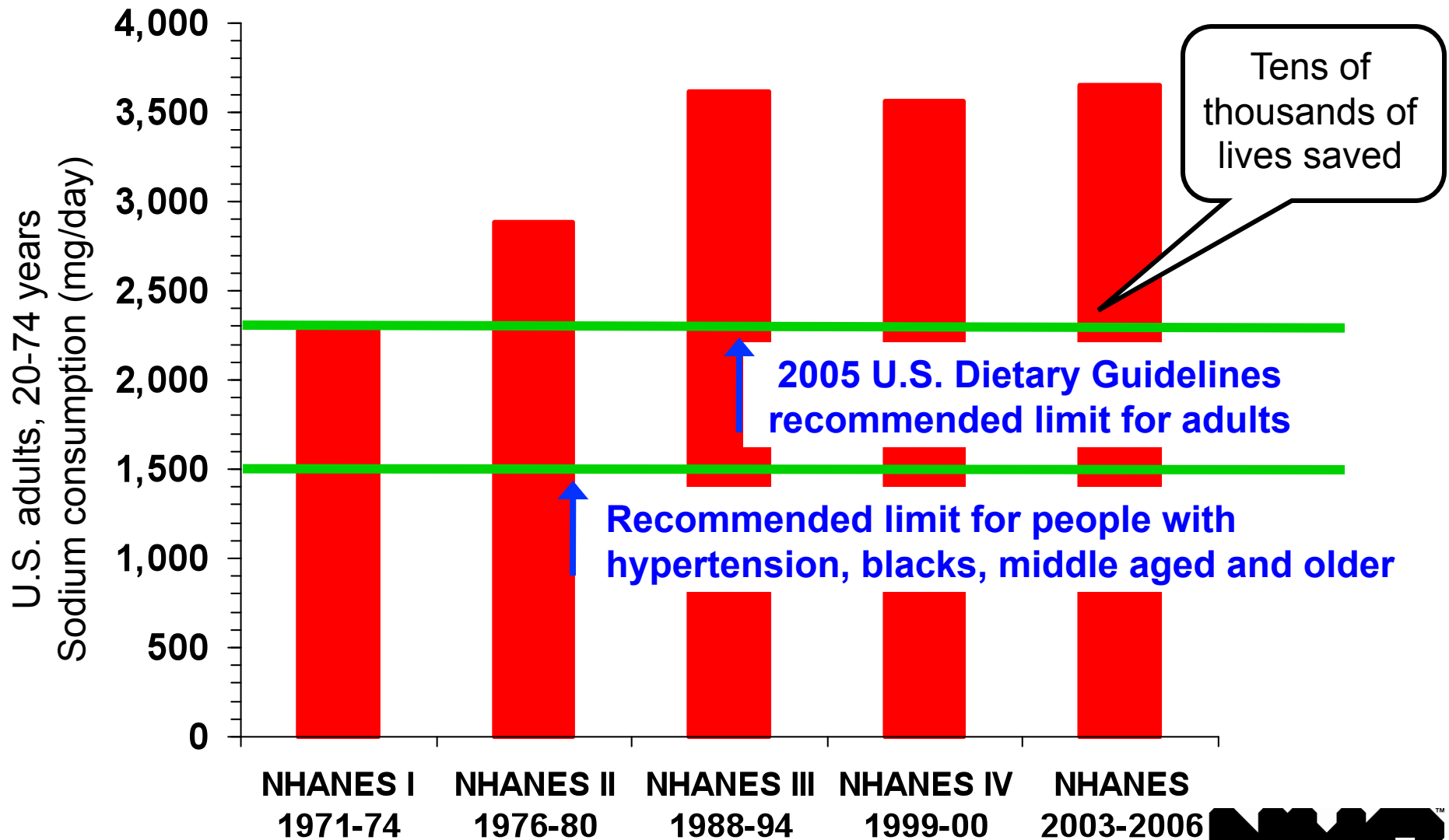
Director, Cardiovascular Disease Prevention and Control Program
NYC Department of Health and Mental Hygiene



Speaker disclosure:

Nothing to disclose

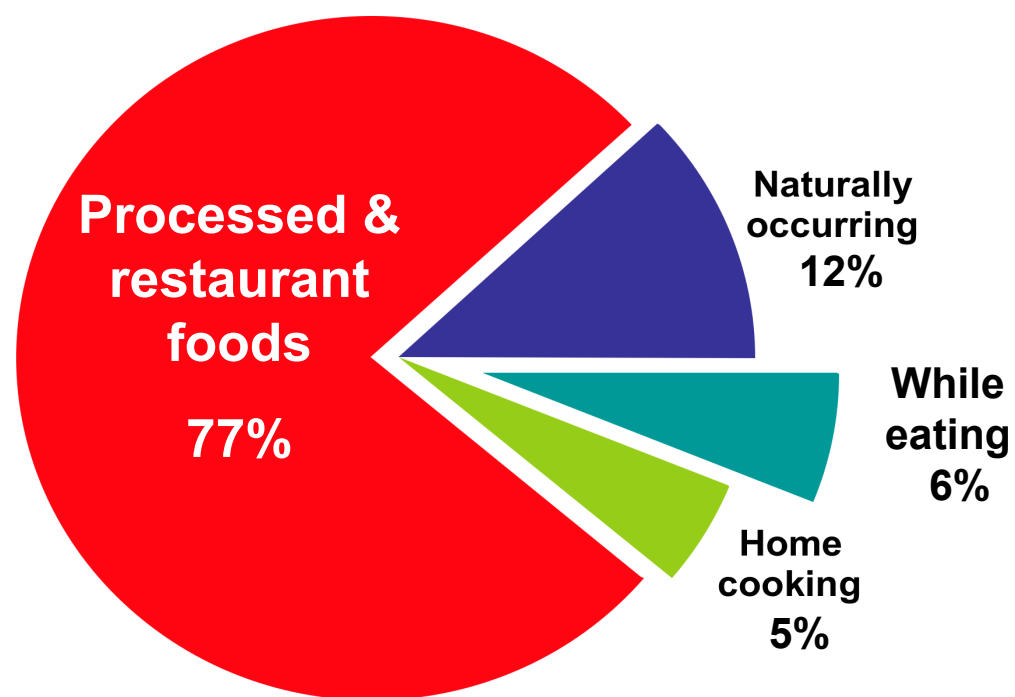
Blood Pressure Reduction Through Reduced Salt Intake Would Save Lives



Impact of Annual Reductions: Comparison Across Various Interventions

Intervention	Incidence of CHD	Death from any cause
Salt reduction: 3 g/day		
Low estimate	66,000 ± 5800	51,000 ± 7100
High estimate	110,000 ± 9200	81,000 ± 11,000
Smoking cessation	41,000 ± 10,000	84,000 ± 9300
Weight loss	59,000 ± 3500	36,000 ± 2000
Statin therapy	52,000 ± 5600	5400 ± 540
Pharmacologic treatment of HTN	100,000 ± 11,000	80,000 ± 10,000

Most Salt Comes from Processed and Restaurant Foods



Source: Mattes, RD. *Journal of American College Nutrition*, 1991, 10:383-393.

Food Sodium Density

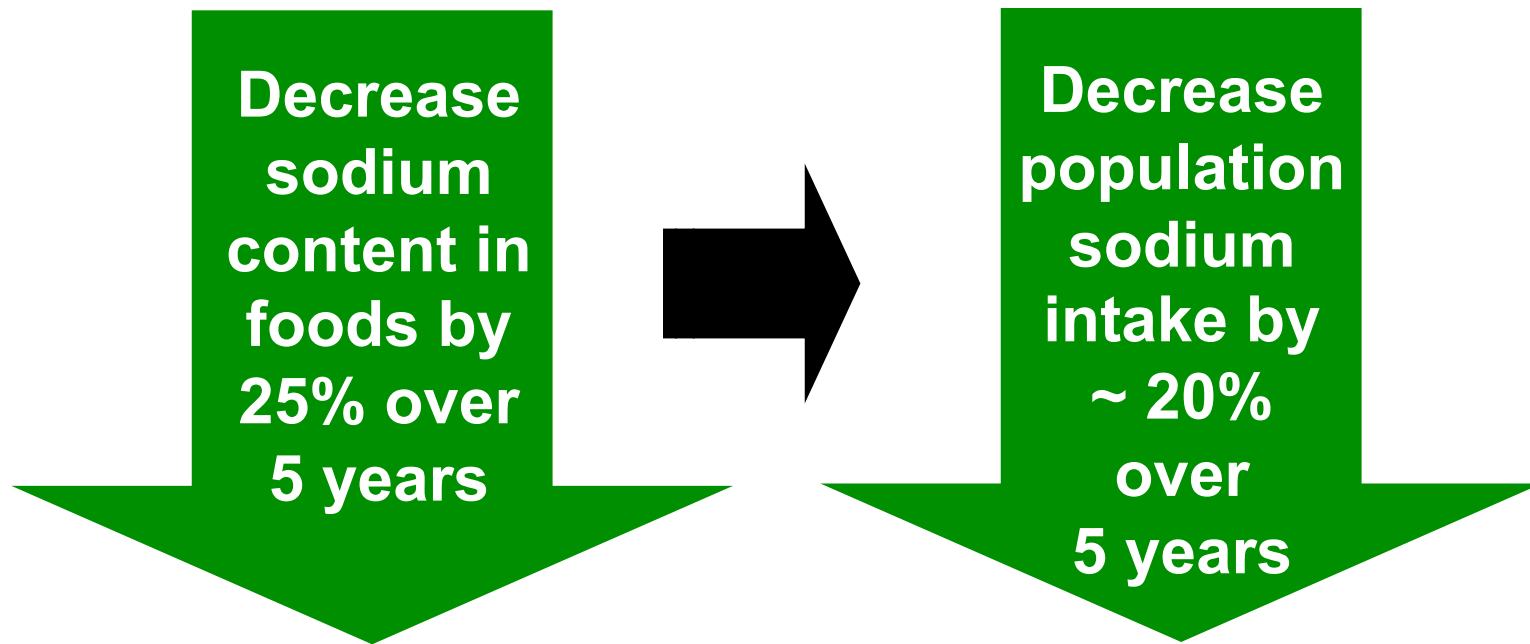
Source of Food	Sodium Density (mg/1,000 kcal)
Home	1,422
Away (total)	1,825
Restaurants	1,925
Fast food/pizza restaurants	1,805
School	1,629
Other	1,466

NOTE: “Home” includes foods purchased at the store and prepared at home; “restaurants” includes those with waiters/waitresses and bar/tavern/lounge restaurants; and “other” includes foods from child or adult care centers, soup kitchens, Meals on Wheels, community food programs, vending machines, food gifts, mail order purchases, street vendors, etc.

Table 5-9 Sodium Density for Foods from Home and Away for Persons 2 or More Years of Age. Data from NHANES 2003-2006.

SOURCE: Institute of Medicine (2010), Strategies to Reduce Sodium Intake in the United States, Prepublication Copy,

Goal: 20% Reduction in Sodium Intake in 5 Years



Reductions will vary among food categories

U.S. Strategy:

Model based upon UK Success

- Government-industry collaboration
- Set category targets for reduction that are
 - Substantive
 - Achievable
 - Gradual
 - Voluntary
 - Measurable

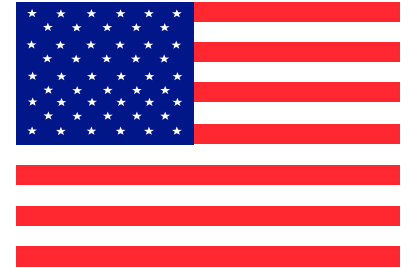
National Effort

Leading national health organizations have signed on to become partners

- American College of Cardiology
- American College of Epidemiology
- American Dietetic Association
- American Heart Association
- American Medical Association
- American Public Health Association
- American Society of Hypertension
- Association of Black Cardiologists
- Consumers Union
- InterAmerican Heart Foundation
- International Society of Hypertension in Blacks
- Joint Policy Committee, Societies of Epidemiology
- National Hispanic Medical Association
- National Kidney Foundation
- New York State Chapter, American College of Cardiology
- Preventive Cardiovascular Nurses Association
- Society for the Analysis of African-American Public Health Issues
- World Hypertension League



National Effort



- Association of State and Territorial Health Officials
- National Association of Chronic Disease Directors
- National Association of County and City Health Officials
- Council of State and Territorial Epidemiologists

States

- Alaska Department of Health and Human Services
- Arizona Department of Health Services
- Baltimore City Health Department
- California Department of Public Health
- Colorado Department of Public Health and Environment
- Delaware Department of Health and Social Services, Division of Public Health
- District of Columbia Department of Health
- Maine Center for Disease Control and Prevention
- Maryland Department of Health and Mental Hygiene
- Massachusetts Department of Public Health
- Michigan Department of Community Health
- New York State Department of Agriculture and Markets
- New York State Department of Health
- Northern Illinois Public Health Consortium
- North Carolina Department of Health and Social Services, Division of Public Health
- Oregon Department of Health and Human Services, Division of Public Health
- Pennsylvania Department of Health
- Tennessee Department of Health
- Washington State Department of Health
- West Virginia Department of Health and Human Resources; Bureau for Public Health

Cities

- Boston Public Health Commission
- Chicago Department of Public Health
- Los Angeles County Department of Public Health
- New York City Department of Health and Mental Hygiene
- Philadelphia Department of Public Health
- Public Health, Seattle and King County



Design Recognizes Two Distinct Sources: Home versus Away-from-Home Foods

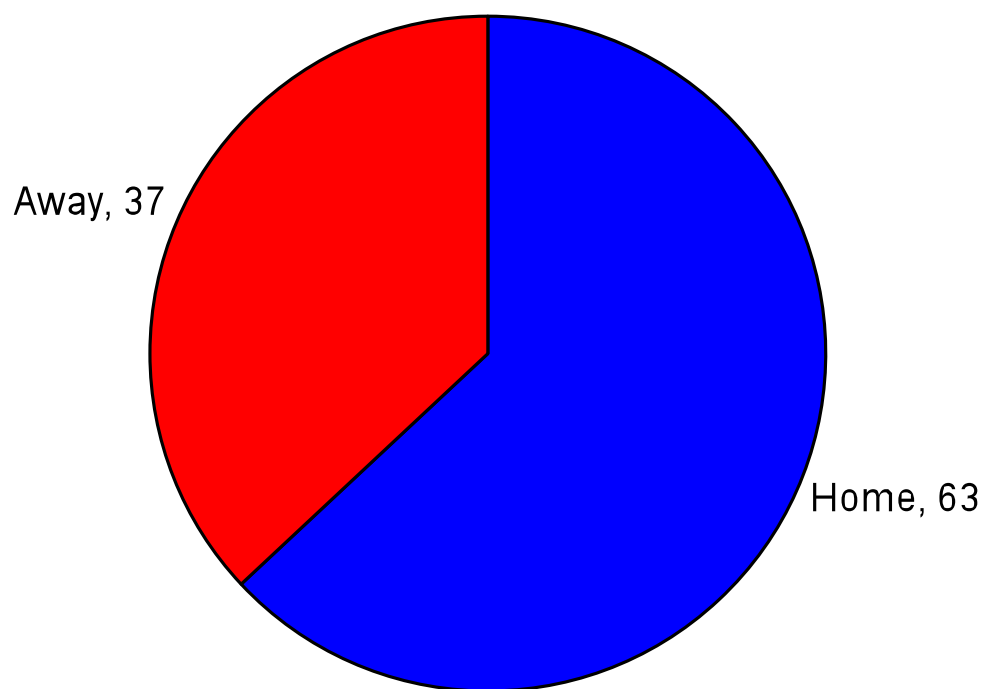
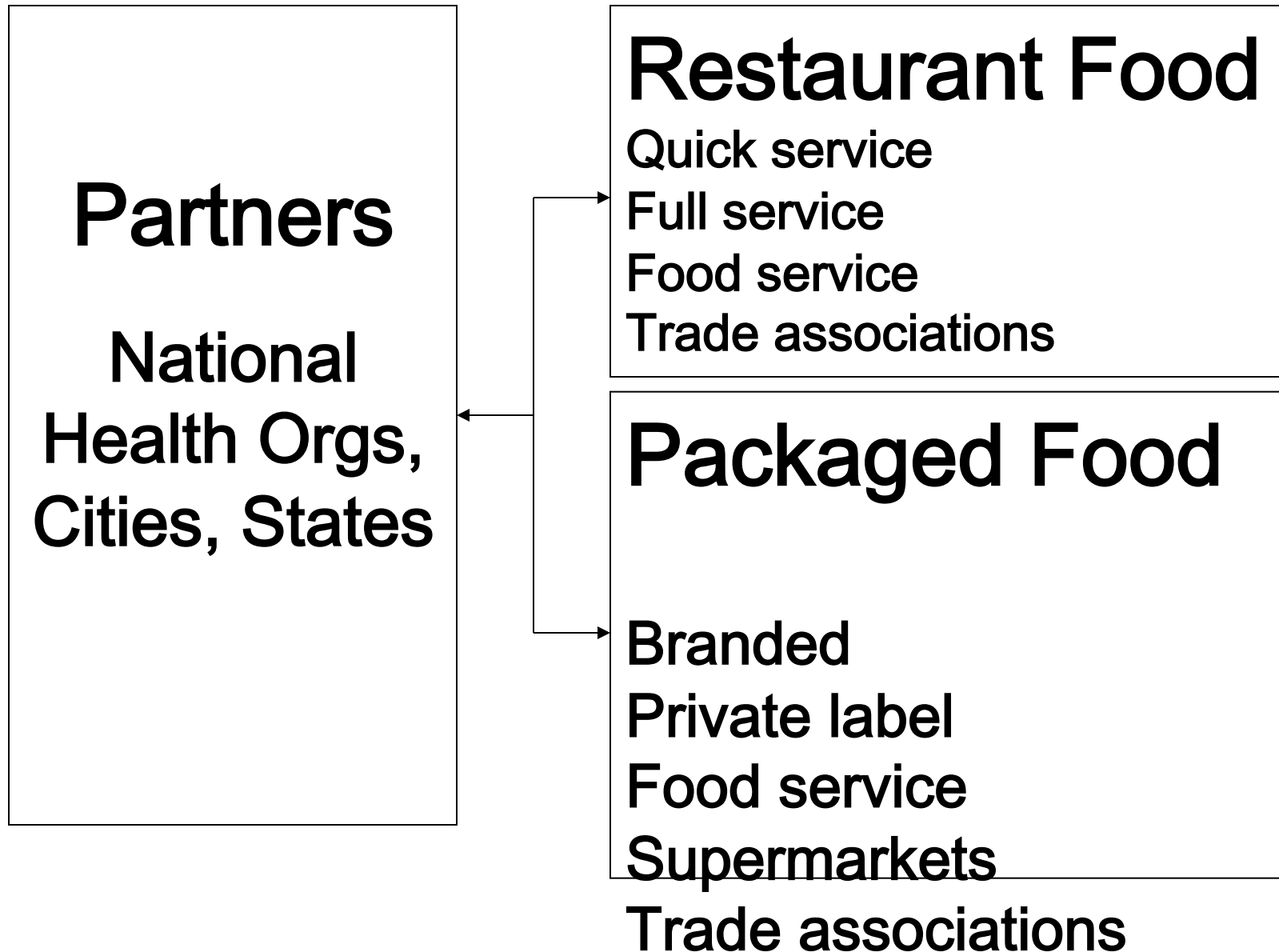


FIGURE 5-9 Percentage of sodium intake from home and away-from-home foods. Data from NHANES 2003-2006.

SOURCE: Institute of Medicine (2010), Strategies to Reduce Sodium Intake in the United States, Prepublication Copy,

National Salt Reduction Initiative



NSRI Components

- Packaged and restaurant food databases
- 100+ meetings with industry
- Categories and targets
 - 62 packaged food categories
 - 25 restaurant food categories
- Monitoring and Evaluation
 - Food supply : NSRI food databases
 - Intake : Population survey

NSRI Packaged Food Categories (1)

Bakery Products

- Breads and rolls
- Sweet breads and rolls
- Tortillas and wraps
- Cakes, snack cakes, muffins, and toaster pastries
- Cookies
- Crackers
- French toast, pancakes, and waffles

Cereal and Other Grain Products

- Instant hot cereal
- Breakfast cereals, light and medium weight
- Breakfast cereals, heavy weight

Meats

- Cold cuts
- Pepperoni and dry salami
- Cooked sausage
- Uncooked sausage
- Hot dogs
- Bacon
- Uncooked whole muscle meat and poultry
- Canned meat and sausage
- Canned chicken and turkey
- Frozen and refrigerated meat substitutes

Dairy Products and Substitutes

- Grated hard cheese
- Cheddar, Colby, jack, mozzarella, Muenster, provolone, and Swiss cheese
- Cream cheese
- Cottage cheese
- Processed cheese

Fats and Oils

- Margarine and other spreads
- Salted butter
- Mayonnaise and mayonnaise-type dressing
- Salad dressing

Sauces, Dips, Gravies and Condiments

- Major main entrée sauce
- Minor main entrée sauce
- Salsa, dips, and dipping sauce
- Barbecue sauce, ketchup, marinades, and steak sauce
- Asian-style condiments

Snacks

- Flavored chips
- Unflavored chips
- Puffed corn snacks
- Popcorn
- Pretzels and snack mixes

Packaged Food Categories (2)

Soups

- Canned soup
- Broth and stock
- Dry soup

Potatoes

- Frozen and refrigerated potatoes
- Seasoned processed potatoes

Mixed Dishes

- Frozen entrees and sides < 6 oz per serving
- Frozen entrees and sides 6-10 oz per serving
- Frozen entrees and sides ≥ 10 oz per serving
- Frozen and refrigerated pizza
- Refrigerated entrees and sides
- Canned chili, pasta, and hash
- Seasoned pasta and stuffing mixes
- Seasoned grain mixes

Vegetables

- Frozen vegetables in sauce
- Canned vegetables
- Canned whole tomatoes
- Diced, crushed, and stewed tomatoes
- Vegetable juice

Legumes

- Baked beans
- Canned beans

Canned Fish

- Canned fish

Seasoning Mixes

- Dry seasoning mixes

Nut Butters

- Nut butters

Restaurant Food Categories

Burgers

- Hamburger
- Cheeseburger

Sandwiches

- Chicken and Fish Sandwiches
- Sandwiches with Ham & Cured Meat
- Sandwiches with Lunch Meat
- Other Sandwiches
- Breakfast Sandwiches on Biscuit
- Breakfast Sandwiches not on a biscuit

Chicken

- Boneless Breaded Chicken
- Bone-in Breaded Chicken
- Bone-in Unbreaded Chicken

Potatoes

- French Fries
- Fried Potatoes & Onion Rings

Seafood

- Breaded Seafood

Pizza

- Cheese Pizza & Cheese Pizza base

Mexican

- Burritos
- Tacos

Soup

- Soup

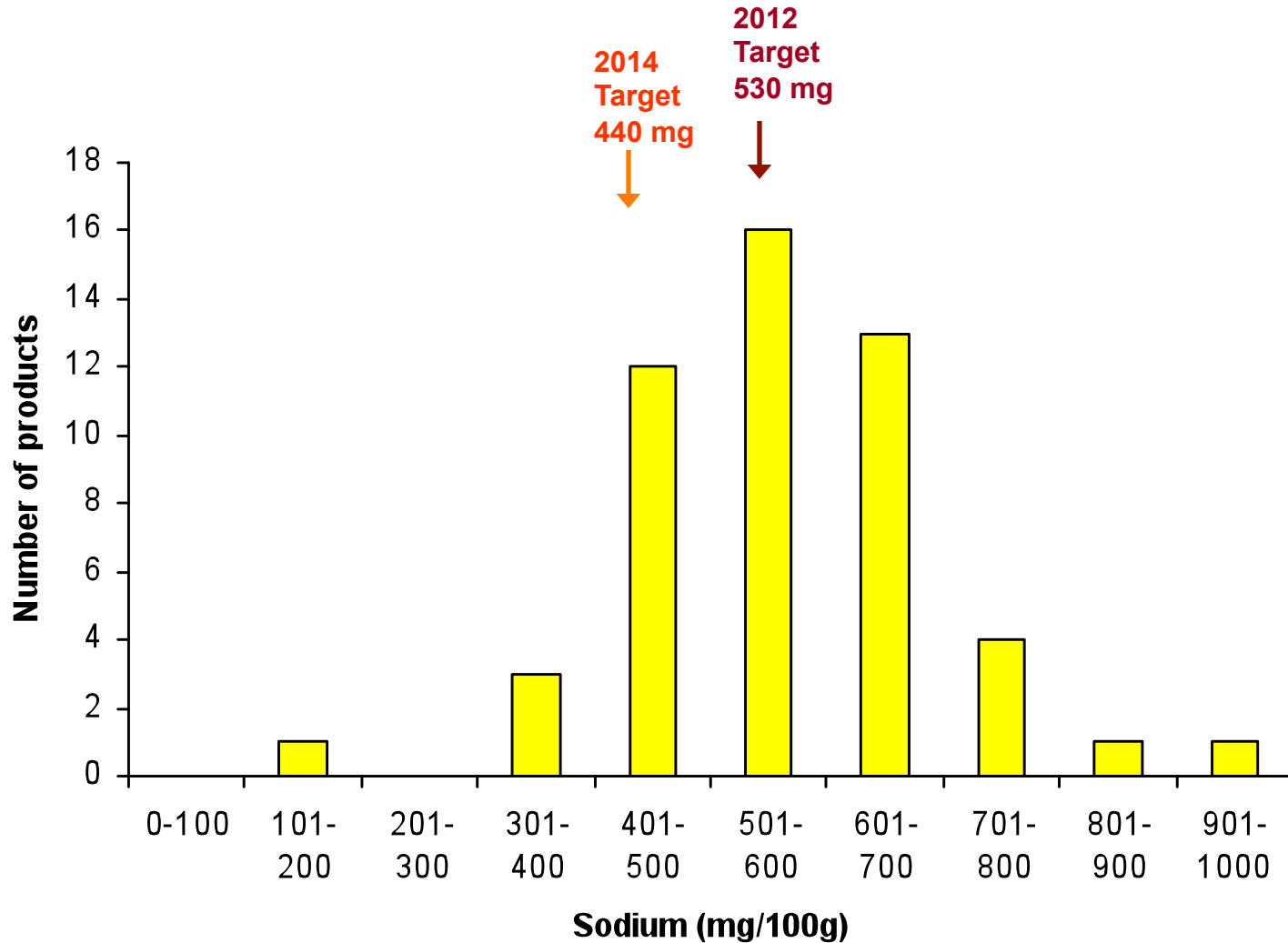
Baked Goods

- Savory Yeast Breads w/o salty toppings
- Savory Yeast Breads with salty toppings
- Sweet Yeast Breads
- Sweet Quick Breads
- Pies and Turnovers
- Biscuits
- Cookies

Category Targets Based on *Sales-Weighted Average Sodium*

- Sales-weighted average takes into account all products in a category and their sales
- Maintains focus on reducing the relative exposure that a product is responsible for, not a product itself
- “Shifts the curve” so that all products consumed contain less sodium
- Additional maxima set for restaurant food items

Sodium Levels in Sample Food Category



Note: Sales data from sales to food service and from companies that do not report data to Nielsen are not included; nutrition data from private label not included. Data based on products that represent top sellers of US market.

Evaluating Population Impact

Study Design:

- Study Sample: ~1,800 NYC adults
 - Population-based
 - Cross-sectional
- Data collection: Spring 2010
- Measures collected:
 - 24-hour urine: sodium, potassium, albumin, creatinine
 - Seated BP
 - Other variables: anthropometry, self-reported health measures
- Weighted analyses will allow for conclusions to be made for NYC as a whole

April 26th NSRI Announces First Company Commitments

Packaged Food

- Boar's Head
- Fresh Direct
- Goya
- Hain Celestial
- Heinz
- Kraft
- LiDestri
- Mars Food
- McCain Foods
- Red Gold
- Unilever
- White Rose

Restaurants

- Au Bon Pain
- Starbucks
- Subway
- Uno Chicago Grill



Working with Industry to Reduce Sodium

- Initiative scale reflects industry interests
- Clear justification, overall goals and targets
- Target development based upon analysis of US data, iterative process
- Transparent mechanism to assess progress
- Voluntary
- Media

Press Following April 26th Event

The Boston Globe

16 food companies
pledge to cut salt



The Washington Post

Salt taking a cut in
groceries, restaurant menus

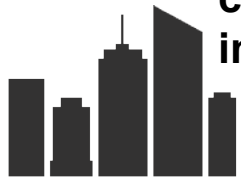


Bloomberg's salt shakeup

Bloomberg recruits 16
companies to cut salt
intake

THE WALL STREET JOURNAL

Salt Assault Gets Allies



gothamist

Bloomberg's Anti-Salt Crusade
Gets Big Business Participation

Los Angeles Times

It's a new season for consumers as 16 companies,
chains announce reductions in salt



Bloomberg Announces Companies
That Will Pass on Salt

NEW YORK POST

Mike shakes up salt firms

**CBS
NEWS**

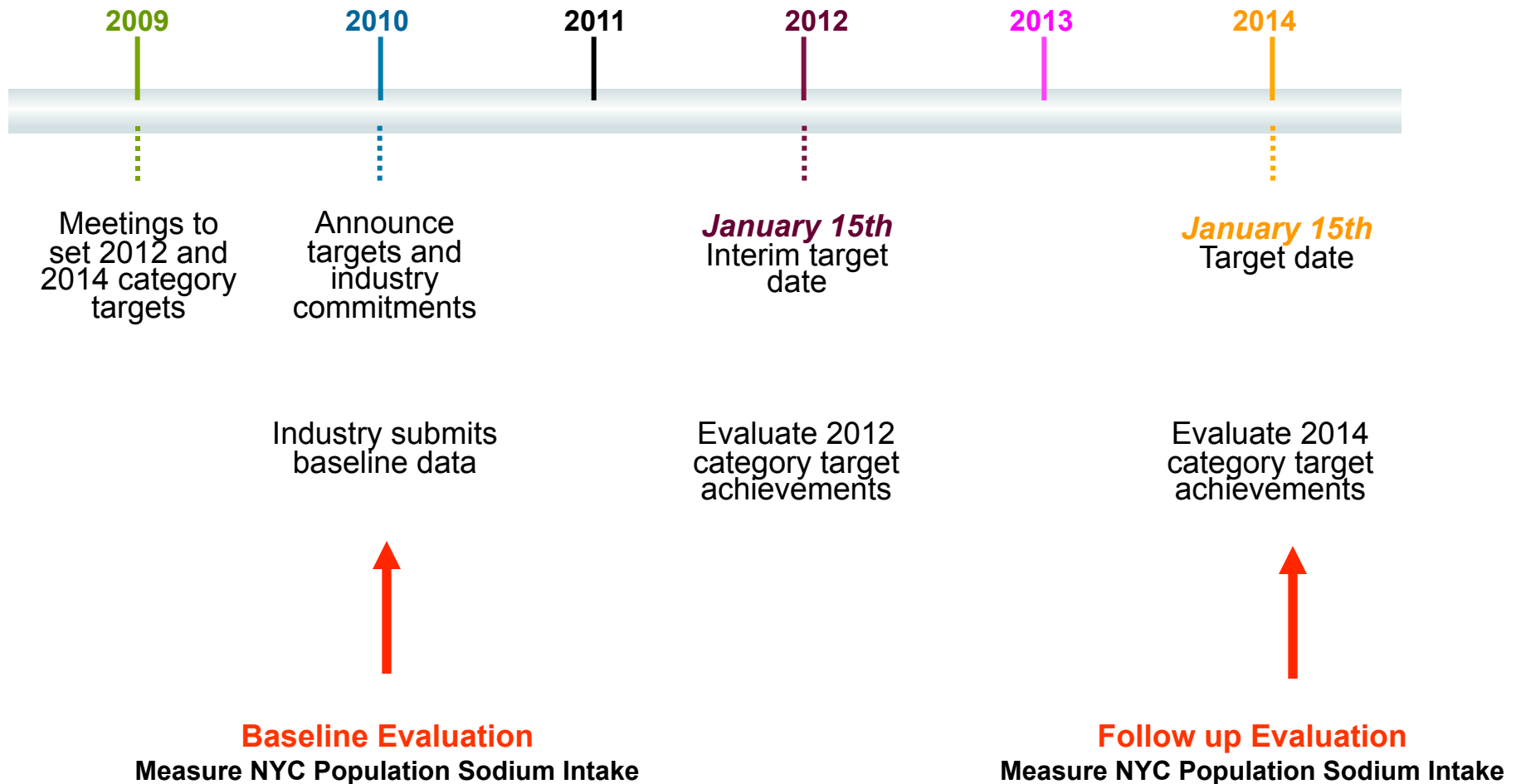
16 Food Companies Agree to Reduce Salt
New York City Spearheads Campaign to Cut Sodium
Consumption, Major Food Manufacturers,
Restaurants Sign On



Mayor unveils food companies
voluntary salt-cutting plan

NYC
Health

National Salt Reduction Initiative Timeline



The US National Salt Reduction Initiative Approach to Lowering Sodium Intake



For more information: www.nyc.gov/health

Sonia Angell

sangell@health.nyc.gov