Healthy Eating Research



Summer Speaker Series for Students 2024

Getting Started!

- Update your name on Zoom, if needed
 - Right click on your Zoom box, click "rename"
- Type your name and institution into the chat box!
 - Question: Which best describes you?
 - Ex. Undergraduate Student, Dietetic Intern, Masters Student, Doctoral Student, Post Doc, Public Health Practitioner, Researcher/Professor, Other
- Remember to keep yourself on mute.
- Type your questions into the chat box.





NOPREN HER Summer Series for Students

- Explore various public health topics related to:
 - Food and nutrition security
 - Federal nutrition assistance programs
 - Nutrition equity
- This series is a collaborative effort of Healthy Eating Research (HER) and Nutrition and Obesity Policy Research and Evaluation Network (NOPREN).





NOPREN HER Summer Series for Students

Schedule and Topics

- June 12: Food Policies in Schools More than just Lunch!
- June 26: Food is Medicine: What does it mean?
 Where are we going?
- July 10: Leveraging Food Service Contracts at 4-year Public Universities to Understand Meal Plan Costs and Affordability
- July 24: Policy Systems and Environmental Strategies to Support Young Children's Diet and Health
- August 7: Collaborating Successfully across Sectors toward Nutrition Security
- August 14: Student Presentations

For more information or to register: https://nopren.ucsf.edu/student-resources





The series will take place on Wednesdays from 4:00 - 5:00 pm EST

Student Presentations!

The HER/ NOPREN Summer Speaker Series will end with Student Presentations and Poster Sessions on August 14. Stay tuned for more details!

Selected students will give a presentation on a nutrition-related project or research they worked on over the summer.





Healthy Eating Research



LINDSEY REED, MPH SENIOR RESEARCH ANALYST HEALTHY EATING RESEARCH

Program Goals



Build a research base for policy, systems, and environmental strategies that advance health and nutrition equity in the areas of healthy food access and security, diet quality, and healthy weight.

2

Foster a vibrant, interdisciplinary field of research and a diverse network of researchers.

3

Communicate research findings to accelerate policy, systems, and environmental changes that promote healthy eating and advance nutrition and health equity.

Goal 1: Build a Research Base

Research that focuses on:

- Children and adolescents from birth to 18 and their families
- Populations and communities at highest risk for obesity and nutritional disparities.

focus areas
常 early childhood
school & after school
healthy communities
beverages beve
m food retail
food marketing
\$ pricing & economics
nutrition policy & programs



Goal 2: Foster diverse network of researchers

HER NOPREN Work Groups

- Healthy Food Retail
- Early Childhood
- Resilient Food Systems
- WIC Learning Collaborative

HER Work Groups

- Early Stage Investigator
- Food Labeling

Visit the NOPREN website to learn more about the HER NOPREN Work Groups! https://nopren.ucsf.edu/

Visit the HER website to learn more about the HER Work Groups!

https://healthyeatingresearch.org/what-we-fund/grantee-resources/

Goal 3: Research Translation & Dissemination

- Assist grantees with communication and translation of research
- Dissemination of research products to researchers, advocates, policymakers, and other stakeholders













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Instagram: @Healthyeatingresearch

Facebook: @HEResearch

Twitter: @HEResearch



Nutrition and Obesity Policy Research and Evaluation Network (NOPREN): What is it?

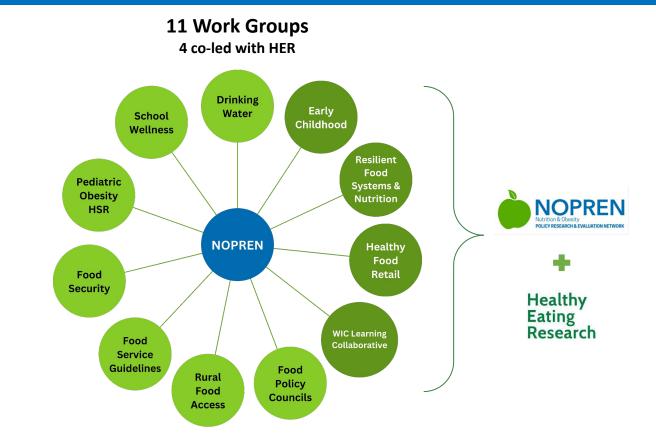
- Collaborative, equity-focused applied research and practitioner network that informs policies and practices
 designed to support the equitable intake of healthy, nutritious foods so that everyone has a fair chance at
 health
- Led by a coordinating center based at the University of California San Francisco (UCSF) in partnership with CDC DNPAO leadership
 - Hosts monthly state-of-the-science webinars
 - Facilitates collaboration among members
 - Send bi-weekly NOPREN News
 - Serves as a platform for sharing and disseminating research
 - Provides professional development opportunities for members
 - Support the network's Work Groups
- Members (3000+) include policy researchers, evaluators, practitioners, professional organizations, non-profits, and government agencies.
 - We encourage early career and junior faculty to join for networking, collaboration, and professional development opportunities.







Work Groups

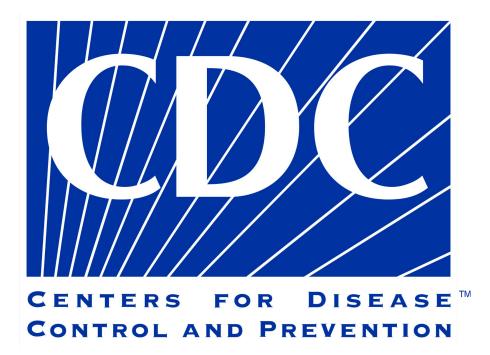


Ways to Engage with NOPREN

- Sign up for the listserv to receive newsletters and network info
- Attend monthly State-of-the-Science webinars
- Join a Work Group
- Work Group Fellows program

Want to learn more about NOPREN or join the network?
Visit www.nopren.ucsf.edu
or contact NOPREN@ucsf.edu









Healthy Eating Research



Session 1: Food Policies in Schools - More than just Lunch!

School Wellness Workgroup Introduction

The mission of the School Wellness Workgroup is to identify and address research and practice gaps on the implementation and evaluation of school district policies, state laws, and federal policies, and their impact on wellness practices in K-12 school settings.

Meetings are the second Tuesday of each month 2 pm ET/11 am PT Next meeting: August 13th, 2024

Workgroup co-chair: Dr. Juliana Cohen, <u>cohenj@merrimack.edu</u>
Workgroup co-chair: Dr. Erin Hager, <u>ehager1@jhmi.edu</u>
Workgroup fellow: Dr. Leah Chapman, <u>chapmanle@Merrimack.edu</u>
Workgroup fellow: Dr. Nan Dou, <u>ndou1@jhu.edu</u>



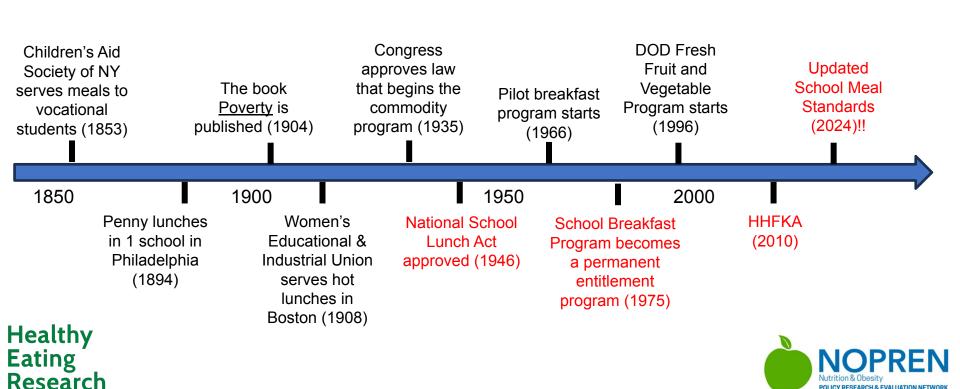


Healthy Eating Research



An Overview of School Meals in the United States

History of School Breakfast & Lunch Program



30.3 million children







2/3 receive a free or reduced-price meal







Eligibility for free or Reduced-Price Meals

- Children from families with incomes at or below 130 percent of the poverty level are eligible for free meals.
- Those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals

	INCOME ELIGIBILITY GUIDELINES										
			Effective from .			July 1, 2023	3 to	June 30, 20)24	9	
	FEDERAL POVERTY GUIDELINES	REDUCED PRICE MEALS - 185 %					FREE MEALS - 130 %				
HOUSEHOLD				TWICE PER	EVERY TWO				TWICE PER	EVERY TWO	
SIZE	ANNUAL	ANNUAL	MONTHLY	MONTH	WEEKS	WEEKLY	ANNUAL	MONTHLY	MONTH	WEEKS	WEEKLY
48 CONTIGUOUS STATES, DISTRICT OF COLUMBIA, GUAM, AND TERRITORIES											
1	14,580	26,973	2,248	1,124	1,038	519	18,954	1,580	790	729	365
2	19,720	36,482	3,041	1,521	1,404	702	25,636	2,137	1,069	986	493
3	24,860	45,991	3,833	1,917	1,769	885	32,318	2,694	1,347	1,243	62
4	30,000	55,500	4,625	2,313	2,135	1,068	39,000	3,250	1,625	1,500	750
5	35,140	65,009	5,418	2,709	2,501	1,251	45,682	3,807	1,904	1,757	879
6	40,280	74,518	6,210	3,105	2,867	1,434	52,364	4,364	2,182	2,014	1,007
7	45,420	84,027	7,003	3,502	3,232	1,616	59,046	4,921	2,461	2,271	1,136
8	50,560	93,536	7,795	3,898	3,598	1,799	65,728	5,478	2,739	2,528	1,264
or each add'l family member, add		9,509	793	397	366	183	6,682	557	279	257	129

School Meal Requirements

Must Offer:

- Fruit
- Vegetable (variety)
- (Whole) Grains
- Milk
- Meat/meat alternative







School Meal Requirements

Must Serve:

• 3 meal components (one of which MUST be a fruit or vegetable)







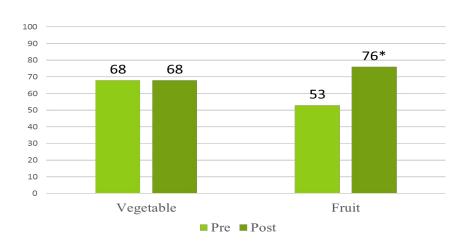






The updated USDA school meal standards have overall led to positive changes

• Improvements in fruit selection

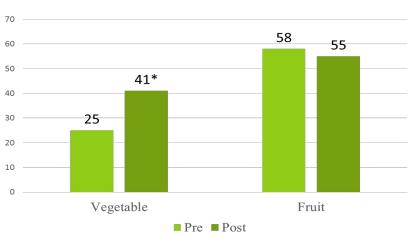






The updated USDA school meal standards have overall led to positive changes

• Improvements in vegetable *consumption* (no statistically significant difference in fruit consumption)

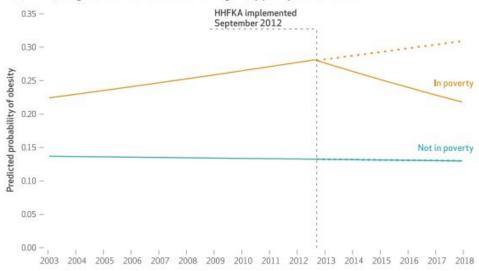




NOPREN
Nutrition & Obesity
POLICY RESEARCH & EVALUATION NETWORK

EXHIBIT 3

Predicted probability of obesity among youth ages 10-17 before and after implementation of Healthy, Hunger Free Kids Act (HHFKA) changes to the National School Lunch Program, by poverty status, 2003-18



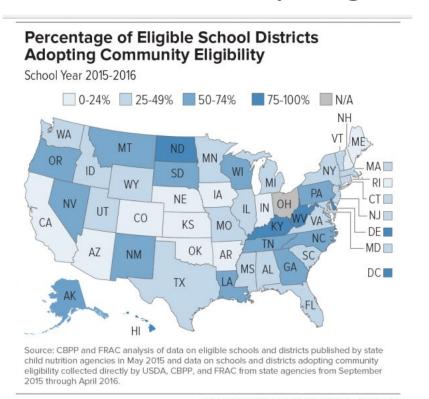
SOURCE Authors' analysis of data from the National Survey of Children's Health, 2003–18. NOTES Sample includes youth ages 10–17 with reported body mass index, poverty status, race, and ethnicity. Survey responses from 2003, 2007, 2011–12, 2016, 2017, and 2018 were used for this analysis. Predicted probability represents the average weighted value from the sample and is derived from weighted logistic regression models that adjust for participant age, sex, race/ethnicity, and state of residence. Dotted lines show pre-HHFKA trends projected post-HHFKA, for youth in poverty and not in poverty. "Not in poverty" indicates family income above 100 percent of the federal poverty level. "In poverty" indicates family income at or below the federal poverty level.

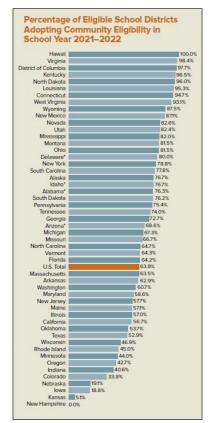




Universal Free School Meal Policies

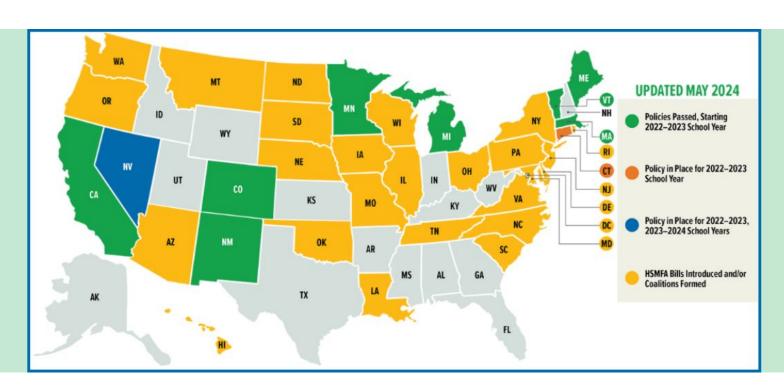
Community Eligibility Provision





Universal Free School Meal Policies

State-Level Universal School Meals



Source: FRAC

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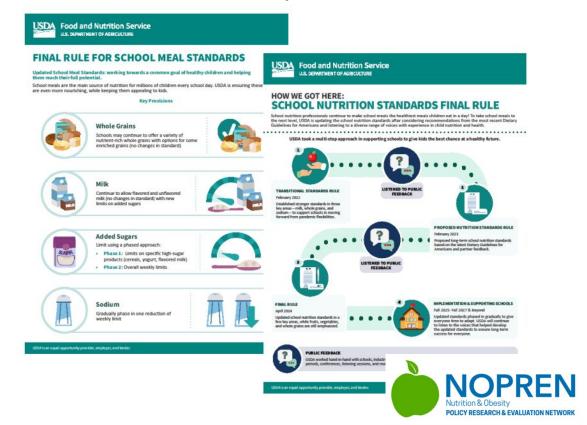


Changes to School Meal Nutritional Requirements Over Time

Nutrition Standards Final Rule

Updated school meal standards on April 25, 2024

Child Nutrition Programs: Meal Patterns Consistent With the 2020-2025 Dietary Guidelines for Americans





Nutrition Standards Final Rule









Added Sugars

Milk

Sodium

Whole Grains

Available at:





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Added Sugars – School Meal Programs (SBP & NSLP)

Current standards

No limits on added sugar in school meals

July 2025 updated standards

- Product-based limits:
 - Breakfast cereals: ≤6 g/oz
 - Yogurt: ≤12 g/6 oz
 - Flavored milk:10 g/8 oz

July 2027 updated standards

 Average weekly limits for added sugars in overall meals (<10% of weekly calories)







Milk

Current standards

- Allow both flavored and unflavored 1% and fat-free milks in the school meals programs to K-12 students
- Schools continue to offer at least two varieties of milk, and unflavored milk must be offered at each meal service



Updated standards

Healthy • Maintain the current standards

Eating



Whole Grains

Current standards

- At least 80% of the grains offered weekly must be whole grain-rich
- "Whole grain-rich" is defined by the FNS as products containing 50% to 100% whole grain

Updated standards

Maintain the current standards







Sodium

National School Lunch Program Sodium Limits

Age/Grade Group	Current Sodium Limit: In place through June 30, 2027	Sodium Limit: Must be implemented by July 1, 2027
Grades K-5	≤1,110 mg	≤935 mg
Grades 6-8	≤1,225 mg	≤ 1,035 mg
Grades 9-12	≤ 1,280 mg	≤ 1,080 mg

School Breakfast Program Sodium Limits

Age/Grade Group	Current Sodium Limit: In place through June 30, 2027	Sodium Limit: Must be implemented by July 1, 2027
Grades K-5	≤ 540 mg	≤ 485 mg
Grades 6-8	≤ 600 mg	≤ 535 mg
Grades 9-12	≤ 640 mg	≤ 570 mg

Updated standards

- Schools will maintain current sodium limits through SY 2026-2027
- By July 1, 2027, schools must implement a 15% reduction for lunch and a 10% reduction for breakfast from current sodium limits





Healthy Eating Research



Competitive Foods in Schools

Overview

- What are "competitive foods?"
 - Snacks and beverages that "compete" with school meals
- · Sold in:
 - School vending machines
 - School stores
 - Snack bars
 - Cafeterias
 - Fundraisers





Overview of Competitive Foods









Healthy Eating Research



- How are competitive foods regulated?
 - USDA Smart Snack nutritional standards
 - 2010 Healthy, Hunger-Free Kids Act required standards for competitive foods
 - National standards passed in 2014









- Overview of Smart Snack Standards
 - Whole grain-rich product (first ingredient is whole grain) OR





- Whole grain-rich product (first ingredient is whole grain) OR
- First ingredient is a fruit, a vegetable, a dairy food, or a protein food OR





- Whole grain-rich product (first ingredient is whole grain) OR
- First ingredient is a fruit, a vegetable, a dairy food, or a protein food OR
- Be a combination food that contains at least ¼ cup of fruit and/or vegetable (e.g., ¼ cup of raisins with enriched pretzels) AND





- Whole grain-rich product (first ingredient is whole grain) OR
- First ingredient is a fruit, a vegetable, a dairy food, or a protein food OR
- Be a combination food that contains at least ¼ cup of fruit and/or vegetable (e.g., ¼ cup of raisins with enriched pretzels) AND
- Meet the nutrient standards for calories, sodium, fats, and total sugars





- Exact regulations vary by school type
- USDA Smart Snacks Guide: <u>https://fns-prod.azureedge.us/sites/default/files/resource-files/s</u> martsnacks.pdf
- Compliance check: https://foodplanner.healthiergeneration.org/calculator/





• Beverage Smart Snack Standards- Elementary and Middle





- Beverage Smart Snack Standards- Elementary and Middle
 - Plain water or plain carbonated water





- Beverage Smart Snack Standards- Elementary and Middle
 - Plain water or plain carbonated water
 - Plain or flavored low-fat or non-fat milk
 - Elementary: 8 fl oz
 - Middle: 12 fl oz





Beverage Smart Snack Standards- Elementary and Middle

- Plain water or plain carbonated water
- Plain or flavored low-fat or non-fat milk
 - Elementary: 8 fl oz
 - Middle: 12 fl oz
- 100% fruit or vegetable juice (regular or diluted with water with no added sweeteners, with or without carbonatione.g., Izze Sparkling Juice Beverage)
 - Elementary: 8 fl oz
 - · Middle: 12 fl oz





Beverage Smart Snack Standards- High Schools





- Beverage Smart Snack Standards- High Schools
 - Same as middle schools, plus:





- Beverage Smart Snack Standards- High Schools
 - Same as middle schools, plus:
 - Low-calorie beverages with or without caffeine
 - 40 calories/8 fl oz
 - 60 calories/12 fl oz





Beverage Smart Snack Standards- High Schools

- Same as middle schools, plus:
- Low-calorie beverages with or without caffeine
 - 40 calories/8 fl oz
 - 60 calories/12 fl oz
- No-calorie beverages with or without caffeine
 - 10 calories/20 fl oz





"Copycat" Competitive Foods

Unintended Consequences of Smart Snack Standards

- Product reformulation
- Doritos
 Reduced-fat whole grain Doritos
- Reduced their fat and calories
- First ingredient is "whole corn"

INGREDIENTS: WHOLE CORN, CORN, VEGETABLE OIL (CORN, CANOLA, AND/OR SUNFLOWER OIL), CORN BRAN, SALT, CORN STARCH, TOMATO POWDER, LACTOSE, WHEY, SKIM MILK, ONION POWDER, SUGAR, GARLIC POWDER, MONOSODIUM GLUTAMATE, MALTODEXTRIN (MADE FROM CORN), CHEDDAR CHEESE (MILK, CHEESE CULTURES, SALT, ENZYMES), DEXTROSE, MALIC ACID, CORN SYRUP SOLIDS, BUTTERMILK, NATURAL AND ARTIFICIAL FLAVORS, SODIUM ACETATE, ARTIFICIAL COLOR (RED 40. BLUE 1, YELLOW 5), SPICE, CITRIC ACID, DISODIUM INOSINATE, AND DISODIUM GUANYLATE.

CONTAINS MILK INGREDIENTS.









- 12 fl oz Pepsi
- Compliant or Not?
- See <u>pgs. 9-12</u> for help!





- Starburst
- Compliant or Not?
- See <u>pgs. 9-12</u> for help!







- Whole Grain Goldfish
- Compliant or Not?
- See <u>pgs. 9-12</u> for help!

Ingredients: Whole Wheat Flour, Enriched Wheat Flour (flour, Niacin, Reduced Iron, Thiamine Mononitrate, Riboflavin, Folic Acid), Cheddar Cheese ([cultured Milk, Salt, Enzymes], Annatto), Vegetable Oils (canola, Sunflower And/or Soybean), Salt, Contains 2% Or Less Of: Yeast, Autolyzed Yeast Extract, Paprika, Spices, Celery, Baking Soda, Monocalcium Phosphate, Onion Powder. Contains: Wheat, Milk.







- 20 fl oz Diet Coke
- Compliant or Not?
- See <u>pgs. 9-12</u> for help!







Prevalence of Competitive Foods

How many schools sell competitive foods?





Prevalence of Competitive Foods

- How many schools sell competitive foods?
 - Cohen et al., 2024
 - National sample of 90 schools
 - 70% of middle schools sold competitive foods
 - 90% of high schools sold competitive foods





Prevalence of Competitive Foods

How many schools sell competitive foods?

- Cohen et al., 2024
 - National sample of 90 schools
 - 70% of middle schools sold competitive foods
 - 90% of high schools sold competitive foods
 - Most commonly sold competitive foods:
 - Beverages (47% of all foods documented)
 - Sweet snacks (25%)
 - Salty snacks (18%)
 - Ice cream/frozen treats (12%)





Compliance with Smart Snack Standards

Do schools follow the Smart Snack standards?





Compliance with Smart Snack Standards

- Do schools follow the Smart Snack standards?
 - Gorski et al., 2016
 - MA sample of 72 schools
 - Food compliance: 60%
 - Beverage compliance: 79%





Compliance with Smart Snack Standards

Do schools follow the Smart Snack standards?

- Gorski et al., 2016
 - MA sample of 72 schools
 - Food compliance: 60%
 - Beverage compliance: 79%
- Cohen et al., 2024
 - National sample of 90 schools
 - Food compliance: 75%
 - Beverage compliance: 80%





Nutritional Quality of Competitive Foods

What is the nutrient profile of competitive foods?





Nutritional Quality of Competitive Foods

- What is the nutrient profile of competitive foods?
 - Cohen et al., 2024
 - Average calories: 118 kcal
 - Average total fat: 3 g
 - Average saturated fat: 1 g
 - Average total sugar: 13 g
 - Average added sugar: 9 g
 - Average sodium: 108 mg
 - Average fiber: 1 g





- \therefore AAP: \leq 100 mg/day
- · Smart Snacks: No limits on caffeine

What is the prevalence of caffeinated beverages?

How MUCH caffeine do caffeinated beverages sold in schools contain?





- \therefore AAP: \leq 100 mg/day
- · Smart Snacks: No limits on caffeine
- · What is the prevalence of caffeinated beverages?
- How MUCH caffeine do caffeinated beverages sold in schools contain?

Note: findings are preliminary, please do not share!





- 1,040 beverages documented
- 24% contained caffeine (n=249/1,040)
- · Average amount of caffeine: 65 mg





- 1,040 beverages documented
- 24% contained caffeine (n=249/1,040)
- · Average amount of caffeine: 65 mg
- The most commonly available caffeinated beverages:
 - Sodas (n=123/249 [49.4%]; 71 mg)
 - Teas (n=66/249 [26.5%]; 34 mg)
 - Sweetened waters (n=38/249 [15.3%]; 67 mg)
 - Energy drinks (n=13/249 [5.2%]; 95 mg)
 - Coffee drinks (n=7/249 [2.8%]; 103 mg)
 - Milk/milk substitutes (n=1/249 [0.4%]; 1 mg)





Healthy Eating Research



Breakout Rooms

Announcements

Please fill out the session evaluation after today's session.

You should be directed to fill it out after the call ends
 OR you may scan the QR code on the right.

Join us for the next session of the speaker series!

- Wednesday, June 26 from 4:00 5:00 PM ET
- Title: Food is Medicine: What does it mean? Where are we going?





