

# Food Service Guidelines

## A strategy to improve nutrition in places people live, work, and play



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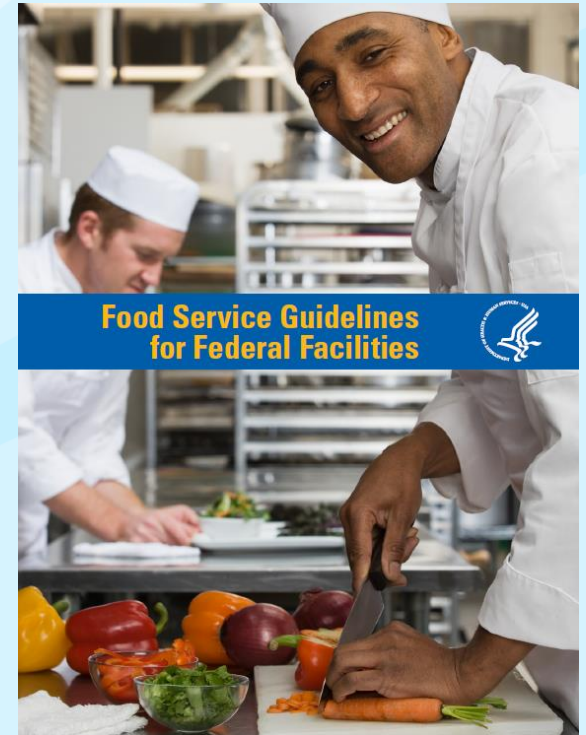
NOPREN Monthly Meeting  
November 18, 2019

# What Are Food Service Guidelines?

A set of voluntary best business practices that can be used to increase healthy and safe food options for employees

## Three primary goals:

- Healthier foods and beverages are available and encouraged at federal facilities.
- Environmentally responsible practices are conducted in federal food service venues.
- Food safety practices are followed to minimize the risk of foodborne illnesses.



# Current Federal FSG

Food and  
Nutrition  
Standards

Facility  
Efficiency

Food Safety

Behavioral  
Design

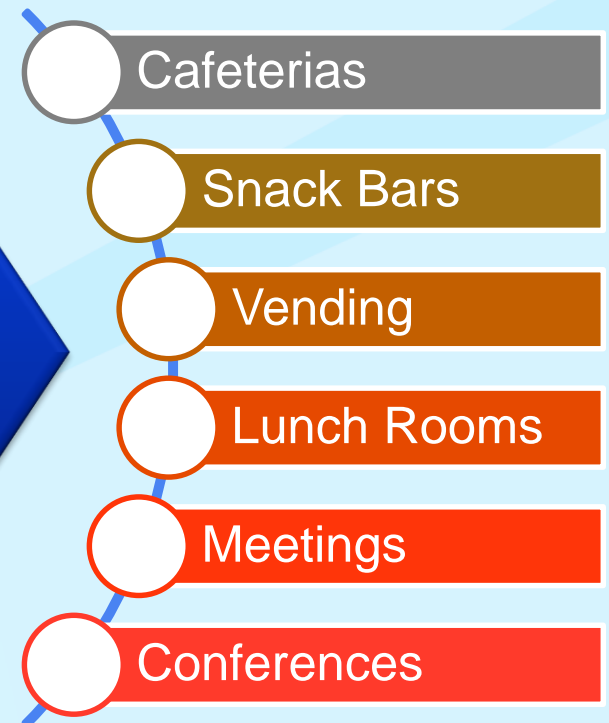
# Apply Where Foods and Beverages are Sold, Served, or Consumed

## Settings

- Federal, state, local governments
- Worksites
- Hospitals
- Assisted-living communities
- Institutionalized populations
- Community-based organizations (including faith-based)
- Colleges and universities
- School systems
- Day care centers



## Venues



# The Rationale for Food Service Guidelines

- **Potential large reach**
- **Need for improvement in diet quality of foods from food service venues**

# Over 100 Million Americans Potentially Eat Food Service Meals Daily

Workplace	Total	% with food service	One plus meal/day
Firms with 1-99 employees	42	11.9%	5
Firms with 100-749 employees	21	42.9%	9
Firms with 750-9999 employees	18	72.2%	13
Firms with 10,000+ employees	40	95.0%	38
<b>Workplace Total:</b>	<b>121</b>		<b>65</b>

Institutions	Total	% with food service	One plus meal/day
Incarcerated	2	--	2
Long-term health/ skilled nursing	2	--	2
Hospitals	0.7	--	0.7
College/University	2	--	2
Schools and Early Education (ECE)		--	35
<b>Institutions Total:</b>			<b>42</b>

<b>TOTAL</b>			<b>107 Million</b>
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Sources:

Number of employees at workplaces by size according to Bureau of Labor Statistics

Percent of firms with food service by firm size from Linnan L, et al. Results of the 2004 National Worksite Health Promotion Survey. Am J Public Health. 2008;98(8):1503-9

Number of people living in institutionalized settings - American Community Survey 2011 - 5 year estimates

National Center for Education Statistics. Digest of Education Statistics, 2011. Alexandria, VA: National Center for Education Statistics, US Dept of Education; 2012.

Number of school and ECE lunches served - USDA 2011 data



# The Worksite Food Environment

- Half of employees report food or beverage vending machines at work
- One third of employees report cafeteria or snack bar at work
- Three fourths report a break room with refrigerator and microwave
- Only 20% of employees agree that their “employer provides opportunities to eat a healthy diet”



Source: Onufrak et al. Worksite Food and Physical Activity Environments and Wellness Supports Reported by Employed Adults in the United States, 2013. *Am J Health Promot.* 2018 Jan;32(1):96-105.

## **Foods Obtained at Work**

- **During a typical week, nearly a quarter (23.4%) of working adults obtain foods at work**
  - Includes vending, cafeterias, free foods from meetings and social events
  - 17% obtained free foods
  - 9% purchased food
- **Among consumers, work foods average 1,292 kcal per person per week**
  - Nearly 70% of calories consumed are from free foods



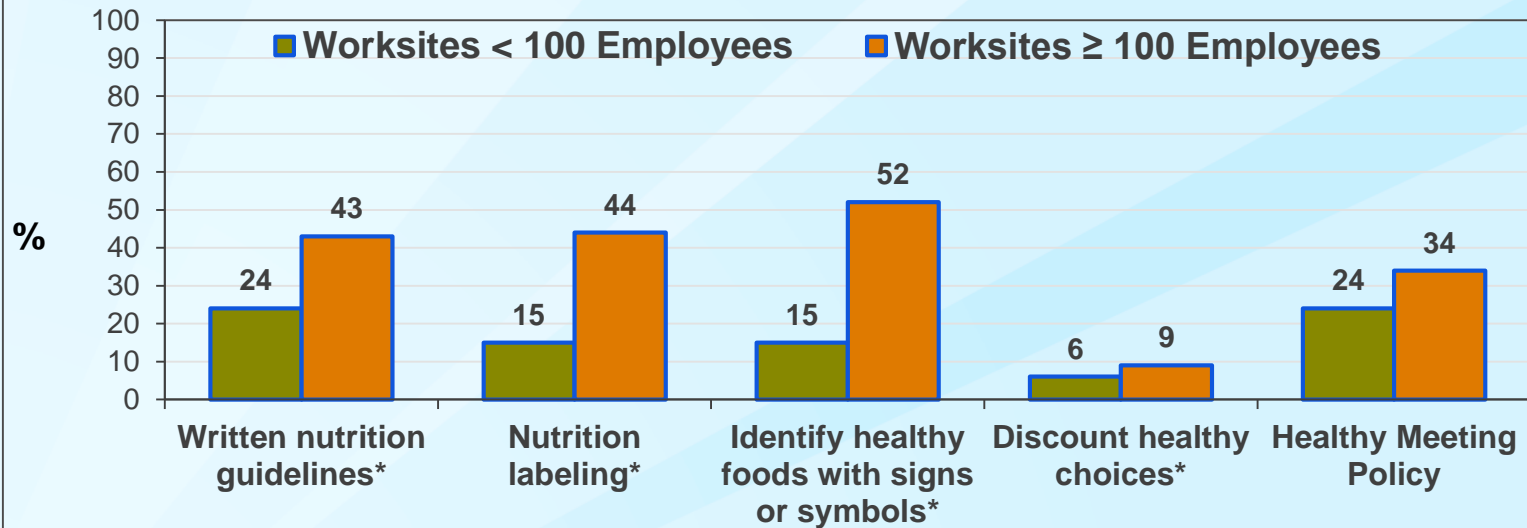
## Diet Quality of Foods From Work

HEI 2010 Component	Worksite Foods Score
<b>Total Fruit</b>	<b>1.8 out of 5</b>
Whole Fruit	2.5 out of 5
Total Vegetables	3.5 out of 5
Greens and Beans	3.4 out of 5
<b>Whole Grains</b>	<b>2.6 out of 10</b>
Dairy	5.2 out of 10
Total Protein Foods	5 out of 5
Seafood and Plant Proteins	2.4 out of 5
Fatty Acids	7.7 out of 10
<b>Refined Grains</b>	<b>3.2 out of 10</b>
<b>Empty Calories</b>	<b>7.4 out of 20</b>
<b>Sodium</b>	<b>3.5 out of 10</b>
<b>Total HEI 2010 Score</b>	48.2 out of 100

# Environmental Supports for Healthy Eating Among US Employers



Prevalence of Policy and Environmental Supports for Healthy Eating Among Worksite Wellness Programs\*



\* Among worksites that offer food

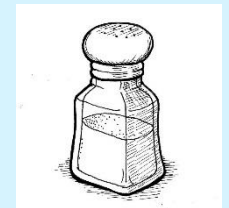
# Foods from Cafeterias (NHANES 2005 to 2014)



- **Prevalence**
  - 3% of US adults consume foods from a non-school cafeteria on a given day
  - Average 706 calories from cafeterias/day/consumer
- **Perceptions of Workplace Cafeteria Healthfulness**
  - 77% of adults with cafeteria at work report “some” or “many” healthy options are available

# Diet Quality of Foods From Cafeterias

HEI 2010* Component	Worksite Foods Score
Total Fruit	2.4 out of 5
Whole Fruit	3.2 out of 5
Total Vegetables	5 out of 5
Greens and Beans	5 out of 5
Whole Grains	2.1 out of 10
Dairy	5.5 out of 10
Total Protein Foods	5 out of 5
Seafood and Plant Proteins	5 out of 5
Fatty Acids	5.5 out of 10
Refined Grains	6.3 out of 10
Empty Calories	13.4 out of 20
Sodium	0 out of 10
Total HEI 2010 Score	58.3 out of 100



\*HEI 2010 = 2010 Healthy Eating Index

Source: Onufrak et al. Foods Consumed by US Adults From Cafeterias and Vending Machines: NHANES 2005 to 2014. Am J Health Promot. 2019

# Foods from Vending Machines

## (NHANES 2005 to 2014)



### ■ Prevalence

- 4% of US adults consume foods from a vending machine on a given day
- Average 264 calories from vending/day/consumer

### ■ Perceptions of Workplace Vending Machines

- 65% of adults with vending machines at work report “few” or “no” healthy options\*\*

#### Sources:

Onufrak et al. Foods Consumed by US Adults From Cafeterias and Vending Machines: NHANES 2005 to 2014. Am J Health Promot. 2019

Onufrak et al. Worksite Food and Physical Activity Environments and Wellness Supports Reported by Employed Adults in the United States, 2013. Am J Health Promot. 2018 Jan;32(1):96-105.

# Diet Quality of Foods From Vending Machines

HEI 2010* Component	Worksite Foods Score
Total Fruit	0.7 out of 5
Whole Fruit	0.3 out of 5
Total Vegetables	0.9 out of 5
Greens and Beans	0.04 out of 5
Whole Grains	1.9 out of 10
Dairy	1.7 out of 10
Total Protein Foods	2.0 out of 5
Seafood and Plant Proteins	4.0 out of 5
Fatty Acids	6.5 out of 10
Refined Grains	8.7 out of 10
Empty Calories	0 out of 20
Sodium	10 out of 10
<b>Total HEI 2010 Score</b>	<b>36.7 out of 100</b>

\*HEI 2010 = 2010 Healthy Eating Index

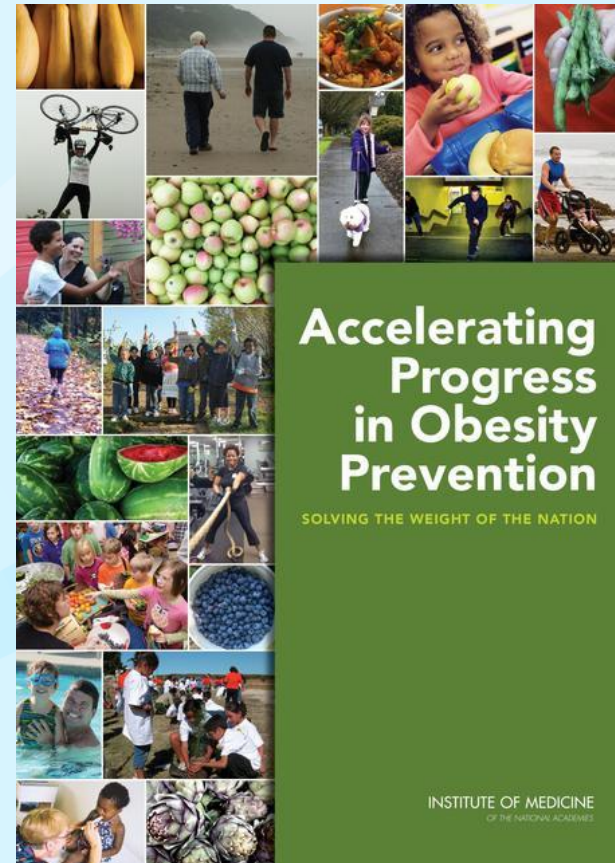
Source: Onufrak et al. Foods Consumed by US Adults From Cafeterias and Vending Machines: NHANES 2005 to 2014. Am J Health Promot. 2019

# Institute of Medicine Report

## Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation

### Strategy 2-3

“Utilize Strong Nutritional Standards for all Foods and Beverages Sold or Provided Through the Government, and Ensure That These Healthy Options Are Available in All Places Frequented by the Public”



# State and Local Government FSG Policies



**State FSG Policies and Executive Orders**



**Municipal and County FSG Policies and Executive Orders**

\*<https://cspinet.org/protecting-our-health/nutrition/healthier-public-places>



# Surveillance of State and Local Government FSG Policies

## Food Service Guideline Policies on State Government–Controlled Properties

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### Abstract

**Purpose:** Food service guideline (FSG) policies can impact millions of daily meals sold or provided to government employees, patrons, and institutionalized persons. This study describes a classification tool to assess FSG policy attributes and uses it to rate FSG policies.

**Design:** Quantitative content analysis.

**Setting:** State government facilities in the United States.

**Participants:** Participants were from 50 states and District of Columbia in the United States.

**Measures:** Frequency of FSG policies and percentage alignment to tool.

**Analysis:** State-level policies were identified using legal research databases to assess bills, statutes, regulations, and executive orders proposed or adopted by December 31, 2014. Full-text reviews were conducted to determine inclusion. Included policies were analyzed to assess attributes related to nutrition, behavioral supports, and implementation guidance.

**Results:** A total of 31 policies met the inclusion criteria; 15 were adopted. Overall alignment ranged from 0% to 86%, and only 10 policies aligned with a majority of the FSG policy attributes. Western states had the most FSG policies proposed or adopted (11 policies). The greatest number of FSG policies were proposed or adopted (8 policies) in 2011, followed by the years 2013 and 2014.

**Conclusion:** The FSG policies proposed or adopted through 2014 that intended to improve the food and beverage environment on state government property vary considerably in their content. This analysis offers baseline data on the FSG landscape and information for future FSG policy assessments.

### Keywords

nutrition guidelines, nutrition policy, healthy eating policy, food and beverage environment, healthy food procurement, food service guidelines

### Purpose

The eating patterns of many people in the United States are not consistent with the 2015-2020 Dietary Guidelines for Americans.<sup>1</sup> Changes in agricultural and food systems in recent decades may have contributed to readily available, inexpensive, energy-dense, large-portioned foods and beverages which may encourage their overconsumption and a sequela of negative health outcomes.<sup>2,3</sup> Overconsumption of high-calorie foods and beverages, often low in overall nutritional value, contributes to weight gain and obesity, which is a risk factor for several leading causes of death, including heart disease, stroke, diabetes, and certain cancers,<sup>4,5</sup> and this is at high levels in the United States.<sup>7</sup> Inexpensive and omnipresent caloric availability is not the only hallmark of obesogenic environments. Diets low in fruits, vegetables, and whole grains and

high in saturated fat, sodium, and added sugars further exacerbate chronic disease risks.<sup>1</sup> In 2010, an analysis showed that dietary composition was the single largest risk factor associated

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## PREVENTING CHRONIC DISEASE

PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

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ORIGINAL RESEARCH

## Nutrition Standards for Food Service Guidelines for Foods Served or Sold in Municipal Government Buildings or Worksites, United States, 2014

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Susan Carlson, PhD<sup>2</sup>; Joel Kimmons, PhD<sup>2</sup>; Deborah Galuska, PhD<sup>2</sup>

*Suggested citation for this article:* Onufrak SJ, Zaganjor H, Moore LV, Carlson S, Kimmons J, Galuska D. Nutrition Standards for Food Service Guidelines for Foods Served or Sold in Municipal Government Buildings or Worksites, United States, 2014. *Prev Chronic Dis* 2016;13:160364. DOI: <https://doi.org/10.5888/pcd13.160364>.

PEER REVIEWED

### Abstract

#### Introduction

The Institute of Medicine and Centers for Disease Control and Prevention have recommended that government agencies use nutrition standards for foods and beverages sold and provided at their facilities. In this study, we examine written nutrition standards for foods sold or served in local government buildings or worksites among US municipalities.

#### Methods

We used data from a 2014 national survey of 1,945 municipal governments serving populations of 1,000 or more to assess the presence of written nutrition standards, the food groups or nutrients addressed by standards, and the populations served by facilities where standards are applied. The prevalence of standards was estimated by municipality population size, rural-urban status, census region, poverty prevalence, education level, and racial/ethnic composition.

#### Results

Overall, 3.2% of US municipalities reported nutrition standards with greater prevalence observed among large municipalities (12.8% of municipalities with  $\geq 50,000$  people vs 2.2% of munici-

palities with  $< 2,500$  people,  $P < .001$ ). Prevalence differed by region, and standards were most common in the West (6.6%) and least common in the Midwest (2.0%,  $P = .003$ ). The most common nutrition topics addressed in standards were offering low-calorie beverages, fruits and vegetables, and free drinking water. Most standards applied to facilities serving government employees (67%) or the general public (66%), with fewer serving institutionalized populations (23%).

#### Conclusion

Few municipal governments reported having written nutrition standards for foods and beverages sold in their facilities in 2014. Implementing nutrition standards for foods sold or served by local governments is a strategy for increasing access to healthier foods and beverages among municipal employees and local residents.

#### Introduction

Food service guidelines (FSGs) delineate food and nutrition standards for the sale or provision of foods and beverages in food venues such as cafeterias and vending machines and may specify approaches such as pricing healthier foods lower than less healthy foods (1). FSG nutrition standards are effective at increasing the availability and purchasing of healthier foods while decreasing the purchasing of less healthful foods (2). The Institute of Medicine and Centers for Disease Control and Prevention (CDC) have recommended that government agencies use nutrition standards for foods and beverages that they sell or provide (3-5). More than 10 million people in the United States are employed by local governments (6), so enactment of FSGs among municipalities can improve food environments in government facilities serving employees, local residents, and institutionalized people.

# Current FSG Work—CDC Funding

## High Obesity Program (HOP)

15 land grant universities working with community extension services

Establish healthy nutrition standards in key institutions such as hospitals, afterschool and recreation programs, community health centers, faith-based organizations, food banks/pantries, and early care and education.

## State Physical Activity and Nutrition (SPAN) Program

16 state recipients

Implement food service guidelines (FSGs) in worksites (e.g., hospitals, universities/colleges, private workplaces, and state, local and tribal government facilities) and in community settings (e.g., parks, stadiums, buildings/areas where community organizations meet)

## Racial and Ethnic Approaches to Community Health (REACH)

31 recipients  
Address health disparities among racial and ethnic populations with the highest burden of chronic disease

Establish healthy nutrition standards in key institutions such as hospitals, afterschool and recreation programs, community health centers, faith-based organizations, food banks/pantries, and early care and education.

# Setting Types Where CDC Grantees Are Implementing FSG

- Worksites
- Hospitals
- Afterschool programs
- Food banks/pantries
- Faith-based organizations
- Early care and education
- Local parks, community, or recreation centers



# NOPREN FSG Workgroup

## Semi-monthly Meetings Alternating Subgroups

- Research and Operations Subgroup
  - Stephen Onufrak, CDC DNPAO
  - Meghan Murphy, San Diego County Health & Human Services
- Policy Subgroup
  - Katie Bishop Kendrick, American Heart Association
  - Jessi Silverman, Center for Science in the Public Interest

# Evaluation of FSG

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- Implementation Evaluation
  - Audits
  - Menus
- Long-term Evaluation Data Sources
  - Point-of-sales
  - Procurement
  - Production Data

## **Future Research and Gaps**

- **Effectiveness of FSG policies on changing dietary behaviors**
- **Best practices for measurement and evaluation using sales and procurement data**
  
- **Emergence of micromarkets**
- **FSG in unique settings such as corrections facilities, food pantries, senior centers, faith-based organizations**
- **How do FSG policies affect the food supply chain?**

# FSG Publications and Resources

## For more information on FSG:

- CDC Food Service Guidelines for Federal Facilities <https://www.cdc.gov/obesity/strategies/food-serv-guide.html>
- A tool for including healthy food service guidelines in contractual agreements <http://www.exceedtool.com/>
- A Healthy Workplace Food and Beverage Toolkit
- [http://www.heart.org/HEARTORG/HealthyLiving/WorkplaceHealth/EmployerResources/Healthy-Workplace-Food-and-Beverage-Toolkit UCM 465195 Article.jsp](http://www.heart.org/HEARTORG/HealthyLiving/WorkplaceHealth/EmployerResources/Healthy-Workplace-Food-and-Beverage-Toolkit_UCM_465195_Article.jsp)
- Food Service Guidelines Resources used by States <https://asphn.org/food-service-guidelines/>
- Healthy Hospital resources including a case series and toolkit with action planning materials and audits: <https://www.cdc.gov/obesity/strategies/healthy-hospital-env.html>