Paradigm Shift in the American Diet: Changing Social Norms

According to Christopher Gardner
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Nutrients → Foods → Food Patterns

Health → Stealth

Food Systems Approach → University Food Hospital Food Worksite Food
Common Ground

Diets
Veggies
White Wheat Flour
White Wheat Flour
Variability

Diets
Bacon & Sausage

30% fat, choose healthy fats
Whole grains (Wheatberries)

Consider grains as a condiment
Industrial production destroyed both the taste and the nutritional value of wheat. One scientist believes he can undo the damage against the grain.
Areas of Common Ground

- Maximize Vegetable Intake
- Decrease Added Sugars
- Decrease Refined Grains
Do Genotype Patterns Predict Weight Loss Success for Low Carb vs. Low Fat Diets? R01 DK091831 (2013-17) + NuSI

n=609
BMI 28-40 kg/m²
non-diabetic
generally healthy
adults 18-50 yrs
~55% women

Low Carbohydrate (n=305)

 months
0 3 6 12

INTERVENTION:
22 group classes, 15-22 participants/group

WEIGHT (1° outcome) X X X X X X X X X X X
Blood (DNA, lipids, glucose, insulin, OGTT, cytokines) X X (no OGTT) X X
Diet Assessment (NDS-R) X X X X
Psychosocial (Questionnaires) X X X X
DEXA, REE (Metabolic cart) X X X

Low Fat (n=304)

Other: Microbiome (fecal samples) Adipocytes (fat biopsies), Other – Various times points, specific cohorts
Genetic predisposition
Insulin Resistance

Metabolic predisposition
Microbiotic Predisposition
One Diet Does Not Fit All Study
Health ➔ Stealth
Write an Op-Ed, try to publish

You Tube – Behavior change for peers

Blogging
Books

Food & Society

Hum Bio 166

Films

Assignments

- Write an Op-Ed, try to publish
- You Tube – Behavior change for peers
- Blogging

Conducted a “stealth” study with students
Purpose: This paper aims to examine whether an innovative educational course focused on societal-level issues related to food and food production (Food and Society) would promote healthful eating among college students.

Results: The students who took the Food and Society course reported significantly improving their healthful eating…

Conclusions: The results suggest that it may be possible to change dietary behaviors in college students by focusing on social, ethical, cultural, and environmental issues related to food and food production.
Changes in Reported Dietary Intake
(from beginning to end of winter quarter, 2009)

Change in Servings per day:
- Vegetables: p<0.05
- High Fat Dairy: p<0.01
- High Fat Meat: p<0.1
- Sweets: p<0.1
- Fruit: p<0.1
- Processed Foods: p<0.1

Mean +/- SEM
Changes in Reported Dietary Intake
(from beginning to end of winter quarter, 2009)

Significantly greater increase in composite score for healthy diet index: +0.7 +/- 0.2 vs. +0.2 +/- 0.2 (p<0.01)
Food Systems Approach

University Food Hospital Food Worksite Food
Unapologetically Delicious

The Culinary Institute of America®

Shift in program: More emphasis on Health and Sustainability
MC-URC  Menus of Change
University Research Collaborative
Reimagining Nutrition Education
At Stanford Medical School

Tim Dang
2nd year

Tracy Rydel, MD

Michelle Hauser
MD, Chef

Maya Adam
MD

Christopher Gardner
PhD

Tina Cowan, PhD

Steven Sloan, MSTP
Biochemistry
Concessions Sustainability Guidelines

General Operations

Standard Criteria
- Participate in waste reduction, recycling and composting programs, as available.
- Promote and incentivize the use of reusable beverage containers.
- Promote use of tap water over bottled water.
- Use green cleaning practices.31
- Use integrated pest management practices and green pest control alternatives to the maximum extent feasible.
- Provide materials for single-service items (e.g., trays, flatware, platels, and boxes) that are compostable and made from bio-based products.34

General Food

Standard Criteria
- Offer 75% of the product line to be organically grown, locally41, or documented sustainably grown (e.g., integrated pest management, pesticide free, other labeling programs).42
- Offer seasonal varieties of fruits and vegetables.

Above Standard
- Offer 35% of the product line to be organically grown, locally41, or documented sustainably grown (e.g., integrated pest management, pesticide free, other labeling programs).

Sustainability Labeling43

Standard Criteria
- Label Organic, local, or documented sustainably grown food items available in food service at the point of choice.

Above Standard
- Educate about the value of agricultural best practices that are ecologically sound, economically viable, and socially responsible in agency concessions services with signage, informational programs, or other means of communicating the benefits of the items that are labeled organic, local, and/or sustainable.
- Provide information that identifies the farms and sustainable practices used.

Animal Products44

Standard Criteria
- Only offer fish/seafood identified as “Best Choices” or “Good Alternatives” on the Monterey Bay Aquarium’s Seafood Watch List or certified by Marine Stewardship Council (or equivalent programs).

Above Standard
- Offer Certified Organic or documented sustainably or locally produced milk and milk products.
- Offer Certified Organic or documented sustainably or locally produced eggs and meat (e.g., grass fed, free range, pasture raised, grass finished, humanely raised and handled).

Beverages

Standard Criteria
- Offer drinking water, preferably chilled tap.

Above Standard
- If offering coffee or tea, include coffee or tea offerings that are Certified Organic, shade grown, and/or bird friendly.
- If composting is available, bottled water must be offered in compostable bottles.
Consumer Demand: Fresh and Minimally Processed
The Decline of ‘Big Soda’

The drop in soda consumption represents the single largest change in the American diet in the last decade.

OCT. 2, 2015
Airport Food - Redefined

San Francisco International Terminal
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