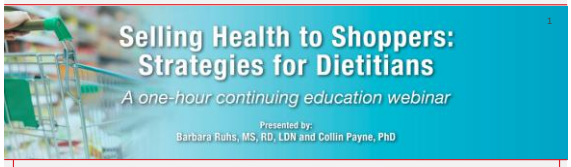


*Suggested Learning Codes: 4010, 6030, 7050, 7120, 7210; Level 2*

**Learning Objectives**

1. Recognize the potential impact of supermarkets on improving public health.
2. Discuss how supermarkets are designed to influence purchase decisions.
3. Help clients/shoppers utilize supermarkets to make good nutritional choices.
4. Utilize supermarkets as an ideal teaching and learning laboratory to inspire clients towards improved health (healthy purchases).



2

## Disclosures

The presenters report the following relevant disclosures:

**Barbara Ruhs, MS, RD, LDN**

- **Advisory Roles:** Oldways Supermarket Dietitian Symposium
- **Employment History:** Bashas' Family of Stores
- **Other:** Contributing Editor to *Environmental Nutrition* magazine and Contributing Editor and writer for *Progressive Grocer* magazine

**Collin Payne, PhD**

- **Research Grants:** Paso del Norte Health Foundation



**Barbara Ruhs**

MS, RD, LDN

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**Barbara Ruhs, MS, RD, LDN** is a Registered Dietitian and Licensed Dietitian/Nutritionist specializing in retail food & health marketing communications and brand strategy for food companies, commodity groups, public relations agencies and supermarkets. She is an entrepreneur, strategic-thinker, and a leader in the field of supermarket nutrition.

She recently re-launched Neighborhood Nutrition LLC, a consulting business offering nutrition counseling and retail-based health promotion solutions intended to help supermarket dietitians sell healthy products and effectively communicate nutrition and health messages to consumers.

## Dr. Collin Payne

PhD, Associate Professor of Marketing at New Mexico State University

4

**Collin Payne, PhD** has been an Associate Professor of Marketing at New Mexico State University since 2008. He earned his Ph.D. in Applied Social Psychology, with a minor in Business Management from Brigham Young University in 2005. As a Post-Doctoral Research Associate at Cornell University from 2005-2008, he conceptualized, conducted, and published consumer behavior research.

He currently studies how consumers' interaction with marketing environments can both help and hurt their health. These studies and others have resulted in over 72 published works that have been featured in media outlets such as The New York Times, The Los Angeles Times, USATODAY, Men's Health, Women's Health, Redbook, Shape Magazine, and The Today Show. He has collaborated with the Paso del Norte Health Foundation, USDA, Robert Wood Johnson Foundation, and large market research companies who all seek to change marketing environments to increase consumer health.



5

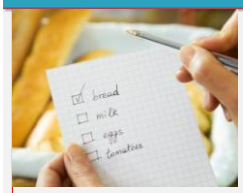
## Supermarkets Selling Health to Shoppers

1. The powerful potential of supermarkets on public health
2. Dietitians working in supermarkets
3. Shopper Marketing powered to promote health: Strategies for Dietitians



6

## Supermarkets: Architects of Choice




**"As architects of choice, supermarkets have a unique opportunity to help shoppers achieve better health goals. If we can find healthy ways to harness the power of the store environment, we'll go a long way toward showing parents how to make healthy choices."**

-Sam Kass, White House Assistant Chef and Senior Policy Advisor for Healthy Food Initiatives

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## Conventional Store Layout Designed for Sales

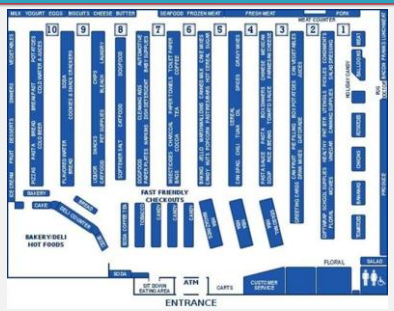



Image source: http://linnthriftway.com/about-us/store-map/



8

## The Power of Supermarkets

| | |
|---|---|
| Real Estate | • Total US grocery stores in 2012 was 37,000 (FMI, Supermarket Facts: Industry Overview 2012) |
| Routine | • 2.2 average visits to grocery store/week (FMI, US Grocery Shopper Trends: 2012 Executive Summary) |
| Relationships | • The # 1 reason people choose a supermarket is convenience and location (PRWeb, Market Force study, 2012) |
| Rewards | • Price and loyalty promotions influence shoppers (shopper marketing) |

"Supermarket Dietitians" are now contributing to the "Power of Supermarkets"
(Strom, *New York Times*, 2012)



9

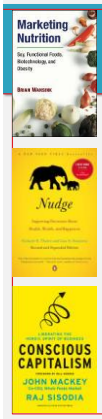
## Retail vs. Healthcare

- How many of you visit or talk to your MD more than 2 times per year?
- 21 million viewers (68 million watch the evening news)

*This is the **power of retail…***

| | |
|---|---|
| Safeway | 44 million shoppers per week |
| Kroger | 68 million shoppers per week |
| Wal-Mart | 150 million shopper per week |

(Pride and Ferrell, 2012)

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## We Need A New Paradigm

**Things I Learned in My Career as a Supermarket Dietitian:**

- Marketing products as "healthy" doesn't work… may have a negative influence on purchases.
- Perceive "healthy" as tasteless and expensive.
- Food industry partners can be part of the solution…use the power of shopper marketing!
- There's a new regime of "conscious capitalists" - leaders driven by service and purpose.
  - John Mackey, Co-CEO of Whole Foods
  - Ric Jurgens, former CEO of Hy-Vee
  - Steve Burd, former CEO of Safeway and founder of Coalition to Advance Healthcare Reform



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## The Power of Retail: Shopper Marketing

- 70% of all purchase decisions are made in-store
- Shopper Analytics, Insight
  - Nielsen, IRI, Spins, Spire, Catalina, Loyalty promotions

**Dietitian Opportunity:**

Mobilize the power of the food industry as partners and collaborate for win-win change.



12

## Why Grocery Stores Matter: A Public Health Perspective

**"Grocery stores are uniquely positioned – in the sweet spot between manufacturers and consumers – to market nutritious products to increase the appeal and affordability, and perhaps de-emphasize those products that are not nutritious."**

– James Marks, MD, MPH, Sr. VP and Health Group Director, Robert Wood Johnson Foundation

- Giant Eagle
- Wegman's
- Marsh's
- Harmons
- Lund & Byerly's
- Weis Markets
- Whole Foods
- Hy-Vee
- Meijer
- H-E-B
- United Texas
- Safeway
- Kroger
- King Soopers
- Albertson's
- Hen House Markets
- Food for Less
- K-VA-T
- Save Mart
- Safeway
- Festival Foods
- Lowes Foods
- Loblaws (Canada)
- Ingle's Markets
- Big Y
- ShopRite
- Sobeys (Canada)



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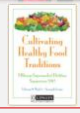
## Oldways Supermarket Dietitian Symposium



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## A *NEW* Trusted Health Voice in Retail

**Corporate Dietitian**
-Nutrition Expert Advisor
-Marketing, Advertising, Merchandising
-Nutrition Labeling
-Media Spokesperson
-Research Projects
-Food Industry Partnerships
-Mentor Dietetic Students
-Social Media
-In Store Radio Messages

**Store-Based**
-One-on-One
-Store Tours
-Food Demos
-Employee Wellness
-Community Events

**Customer Service**




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## Retail Strategies & Health Promotion Opportunities


**Fresh:** Supermarkets pay a lot of attention to making produce look fresh – it's a powerful influence on consumer perception.


**Sensory**: Bakery in front of the store to increase hunger. Hungrier shoppers buy more and willing to spend more.


**Placement:** End-caps (new, popular, seasonal and not always best prices) and check out lanes (high impulse).


**Socializing:** Coffee, Wine bars, Service Deli, Banks


**In-Store Pharmacies:** Trusted Health Providers


**Music (Muzac)**: Increase "dwell time," mood music & ads


**Shopping Cart**: Size of carts influence purchases

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## Dietitians & Supermarkets Can Impact Public Health

- Nudge customers towards healthier options
- Teach basic culinary skills
- Improve nutrition quality of food industry products
- Educate at the point-of-purchase
- Increase exposure to new foods - sampling
- Collaborate on research projects
- Make healthier choices more affordable
- Offer shopping lists & menus for specific health concerns
- Reach millions with their messages!



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## A Call to Action for Dietitians

**For All Dietitians**

- Reconsider the role of the supermarkets and the food industry's role in impacting community health (Freeman, *The Atlantic*, 2013).

**For All RDs in Food Industry**

- Seek to engage RDs in retail and community to guide product development, marketing and address ethical concerns.

**For All Supermarket RDs**

- Measure and share results to have greater impact – enlist support of research institutions.



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## Who Are We?

**NMSU Consumer Behavior Lab** (http://cobelab.nmsu.edu/)

- Multidisciplinary perspectives on consumer health
- Understand how marketing can help both business and consumer health

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## Introduction

- Supermarket— all major obesity stakeholders & 60% of US food expenditures here
- BUT relatively little health intervention research here

**Why? Two possible reasons:**

1. Profitability→ Fresh F&V—high margin & perishable (also anti-obesity)
2. Existing research inconsistent effects (if any) → Endow existing attempts with social meaning

(Payne and Niculescu, *Agri Res Econ Rev.*, 2012)



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## The Whole Presentation in 1 Slide

I. Indirect and Direct Attempts to Increase Consumer Health
- Indirect Attempts (government manufacturer retailer consumer)
- Direct Attempts (retailer consumer)

II. An Alternative: Social Meaning

III. Three Different Interventions:
- Half Cart
- Placards
- Floor Stickers

IV. Discussion



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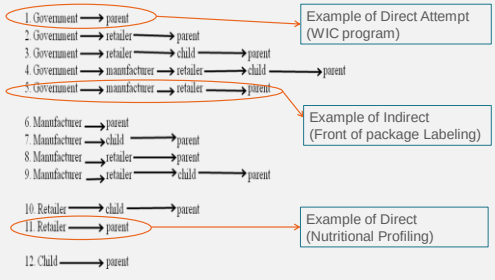
## Indirect & Direct Attempts to Increase Consumer Health



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## Indirect & Direct Attempts to Increase Consumer Health

1. Government → parent
2. Government → retailer → parent
3. Government → retailer → child → parent
4. Government → manufacturer → retailer → child → parent
5. Government → manufacturer → retailer → parent

Example of Indirect (Front of package Labeling)

6. Manufacturer → parent
7. Manufacturer → child → parent
8. Manufacturer → retailer → parent
9. Manufacturer → retailer → child → parent

10. Retailer → child → parent
11. Retailer → parent

12. Child → parent



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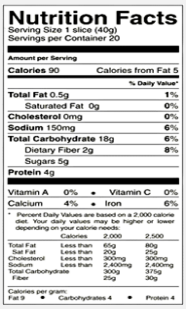
## Indirect Attempts to Increase Consumer Health

**Crucial Events for FOP**

1. FDA and FTC worried public not getting nutritional information to make healthy choices. ↓
2. Nutrition Labeling and Education ACT 1990 (1993)- "Nutrition Facts Panel (NFP)"



**Nutrition Facts**
Serving Size 1 slice (40g)
Servings per Container 20

**Amount per Serving**
**Calories** 90 — Calories from Fat 5
**% Daily Value***
**Total Fat** 0.5g — 1%
Saturated Fat 0g — 0%
**Cholesterol** 0mg — 0%
**Sodium** 150mg — 6%
**Total Carbohydrate** 18g — 6%
Dietary Fiber 2g — 8%
Sugars 5g
**Protein** 4g

Vitamin A 0% • Vitamin C 0%
Calcium 4% • Iron 6%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

| | Calories | 2,000 | 2,500 |
|---|---|---|---|
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Fiber | | 25g | 30g |

Calories per gram:
Fat 9 • Carbohydrates 4 • Protein 4



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## Indirect Attempts to Increase Consumer Health

**Crucial Events for FOP**

3. Commercial firms' natural response to NFP:
   - Engage in federally protected commercial speech
   - Within guidelines, emphasize food's relative health benefit downplaying nutritional detriments.

**Examples:**

→ Helps your health!

→ Healthy family choice!

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## Indirect Attempts to Increase Consumer Health

**Crucial Events for FOP**

- Trade organization (grocery manufacturer association) FOPs (January 2011) "Facts Up Front"…
- Not as good as heuristic-based traffic light symbols (Roberto et al, *Am J Prev Med.*, 2012)




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## Indirect & Direct Attempts to Increase Consumer Health

1. Government → parent
2. Government → retailer → parent
3. Government → retailer → child → parent
4. Government → manufacturer → retailer → child → parent
5. Government → manufacturer → retailer → parent

6. Manufacturer → parent
7. Manufacturer → child → parent
8. Manufacturer → retailer → parent
9. Manufacturer → retailer → child → parent

10. Retailer → child → parent
11. Retailer → parent

Example of Direct (Nutritional Profiling)

12. Child → parent



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## Direct Attempts to Increase Consumer Health

Hannaford Stores


Topco, LLC

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## Direct Attempts to Increase Consumer Health



Results?

(Martin, *New York Times*, 2007; Sutherland et al, *Am J Clin Nutr.*, 2010)

| Food | Increase? |
|---|---|
| Fat Free Milk | +1% |
| Fruit & Vegetables | 0% |
| All "more healthy" | 1.4% |



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## Other Direct Attempts to Increase Consumer Health

Table 1. Direct Attempts Influencing Supermarket Fresh Fruit and Vegetable Purchases

| Source | Tool | Sample | Result |
|---|---|---|---|
| | **Promotion** | | |
| Sutherland et al. (2010) | Nutritional profiling: 3-tier star-coded icons point-of-purchase | Sales data: 168 stores | **Effect:** unclear; no specific data for fruit & veg, but increase in star-coded items over 2 yrs = 1.39% |
| Curhan (1974) | Display space, price, newspaper advertising, location quality | Sales data: 4 stores | **Effect:** positive; increased display space for all fruit and veg; price for soft fruit; advertising & prime local on hard fruit and cook or [illegible]; p ≤ .25 used as criterion |
| Gittelsohn et al. (2007) | Out-of-store mass-media (e.g., newspaper ads, video) and in-store demonstrations, taste tests/shelf labeling | 287 | **Effect:** mixed; increase in purchasing of local vegetables; no difference for local fruit or imported vegetables |
| | **Economic** | | |
| Anliker et al. (1989) | Fruit & veg coupons | 40 | **Effect:** unclear; 79.1% used some coupons 57% used all; don't know base purchasing |
| Mhurchu et al. (2010) | Fruit & veg price discounts, education, discount + education | 2,174 | **Effect:** positive; discounts of 12.5% increased fruit and veg by 1.06 lbs/week after 6 months and 62 lbs after 12-months. No effect for education. |
| Herman et al. (2008) | Fruit & veg vouchers for low-income women | 454 | **Effect:** unclear; 90% vouchers redeemed ($10 value)/week; don't know base purchasing |
| Herman et al. (2006) | Fruit & veg vouchers for low-income women | 602 | **Effect:** unclear; 90% vouchers redeemed ($10 value)/week; increased self-reported consumption of fruits and veg by about 1 serving. Don't know base purchasing |
| | **Information** | | |
| Wisen et al. (1991) | Interactive kiosk system | 77 | **Effect:** none |
| Anderson et al. (2001) | Interactive kiosk system | 296 | **Effect:** none |
| Rodgers et al. (1994) | Shelf labels, food guides, produce signs, monthly bulletin | Sales data: 40 treatment, 40 control stores | **Effect:** unclear; significant 2.4% increase in market share for fresh produce compared to control but didn't control for population characteristics & treatment store's sale of salad items. |



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## How Do We Know What to Buy?

- HMMMM…What should I buy? (Schwartz, TED Conferences, 2005)
- 285 variety of cookies, 75 iced teas, 230 soups, 175 salad dressings, 40 toothpastes, etc.

## How Do We Know What to Buy?

Can parents use nutrition facts panels, profiling, and "facts up front?"

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## Social Meaning

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1. Previous assumption= choose foods without reference to others
   - nutrition, price, or promotion (Just and Payne, *Ann Behav Med.*, 2009)
   - Maybe for private behavior, but what about public behavior?
2. Social norm assumption= food decisions externally motivated
   - What is common, normal, or appropriate (Ariely and Levav, *J Consum Res.*, 2000; Cialdini and Trost, 1998)
   - Social norm tools not yet used to increase purchase of fruits and vegetables
   - Tantalizing evidence= ordered larger if others showed preference (McFerran et al, *J Consum Res.*, 2010)
3. Descriptive and prescriptive norms



## Grocery Stores Set Descriptive "Norms"

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Which would lead you to buy more?

| | |
|---|---|
| Limit 18/person | No Limit/person |
| 4 for $4.00 | 1 for $1.00 |
| Buy 15 for the weekend | Buy some for the weekend |

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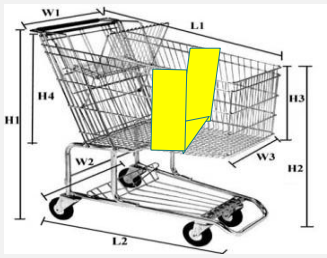
## Intervention 1: The Half Cart



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## Field Study (Modified Grocery Carts)

**Large supermarket chain allowed us to:**

- Recruit 143 customers as entered store (coupon for free coffee)
- Told them studying how people shop
- Randomly assign them 2 conditions: regular vs. modified cart
- Sign "produce in front" everything else in back
- Questionnaire at end



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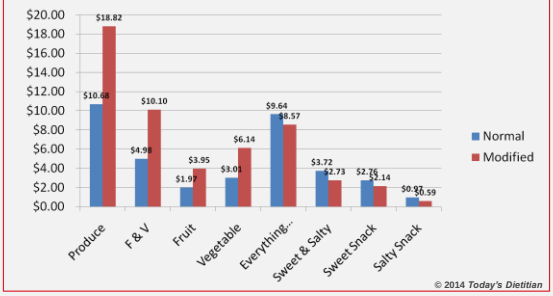
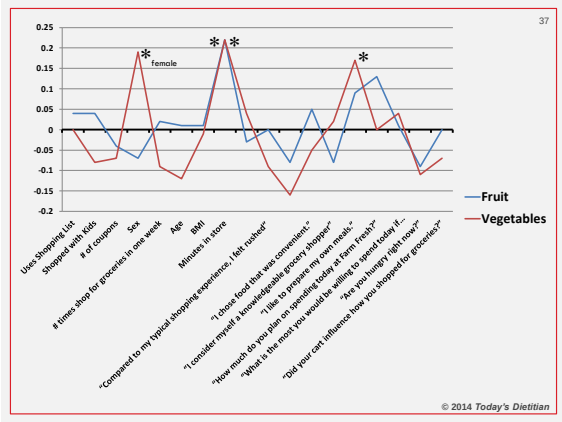
## Field Study (Modified Grocery Carts)

**Results** (Total Purchase $50.54 vs. $63.21, p = .06)




37
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
female
Fruit
Vegetables
Uses Shopping List
Shopped with Kids
# of coupons
Sex
# times shop for groceries in one week
Age
BMI
Minutes in store
"Compared to my typical shopping experience, I felt rushed"
"I chose food that was convenient"
"I consider myself a knowledgeable grocery shopper"
"I like to prepare my own meals"
"How much do you plan on spending today at Farm Fresh?"
"What is the most you would be willing to spend today if..."
"Are you hungry right now?"
"Did your cart influence how you shopped for groceries?"
© 2014 Today's Dietitian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Intervention 2 & 3: Shopping Cart Placards & Floor Stickers
© 2014 Today's Dietitian


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Shopping Cart Placards
En Esta Tienda, La Mayoría de la Gente Elige al Menos 5 Frutas y Verduras
Los más Populares: Plátanos, Limones, Aguacates, Maíz, Naranjas, Tomates, Jalapeño, Pimientas Verdes, Cebollas, y Duraznos
5!
In This Store, Most People Choose at Least 5 Produce Items
Most Popular: Bananas, Limes, Avocados, Corn, Oranges, Tomatoes, Jalapeno & Long Green Peppers, Onions, and Peaches
© 2014 Today's Dietitian

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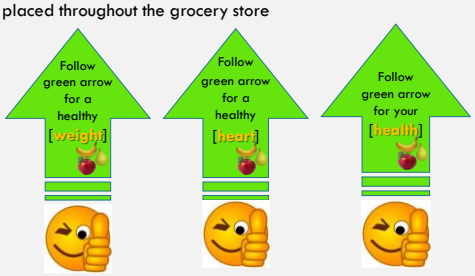
## Floor Stickers

10 Spanish and English Floor Stickers (6 ft long by 3 ft wide) placed throughout the grocery store



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## Method

Conducted 14-week quasi-experimental design with alternating "wash-out" periods

**Table 1 Health Intervention Timeline**

| | Control | Treatment |
|---|---|---|
| Weeks 1-2 | x | |
| Weeks 3-4 | | x (Placards) |
| Weeks 5-6 | x | |
| Weeks 7-8 | | x (Floor Stickers) |
| Weeks 9-10 | x | |
| Weeks 11-12 | | x (Both) |
| Weeks 13-14 | x | |



## Results

Collection of 207,633 individual grocery store transactions as daily sales reports

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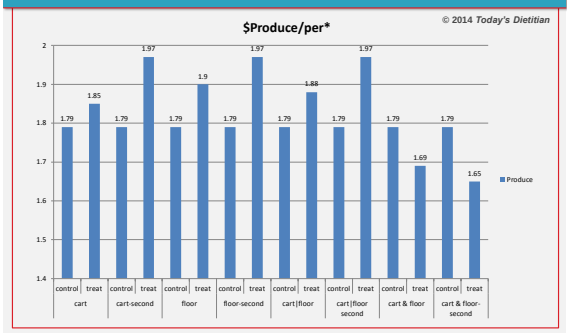
## Average Produce Purchase per Person per Day

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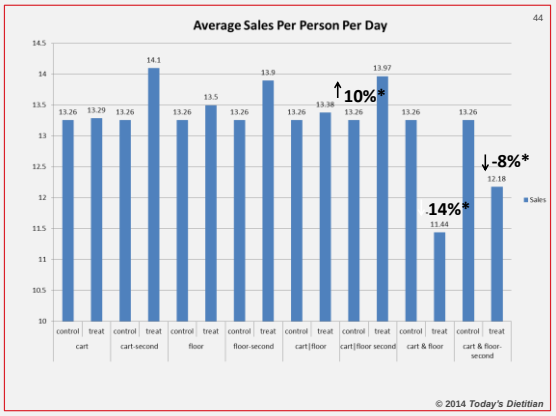


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## Discussion

1. Preliminary data suggest interventions work (low cost/easy implementable)
2. Need laboratory data to isolate process
3. Need to examine why second weeks generally more powerful than first weeks
4. Difficult to get exact "norm information for each store"
5. Not a panacea:
   - we don't know for how long effects last or decay rate
   - we don't know if effects are store specific
   - looks like too many cues are bad

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## Top 5 "Helps" for Customers

1. Use cash vs. credit/debit
2. Physically mark-off half cart for fruits and vegetables
3. Avoid using front-of-package health information as the sole reason for purchase
4. Create new "route habits"
5. Create a variety of shopping lists, rotate them, and stick to them!



## What's Next

Lowe's was so excited that it now plans to put the placards in every cart at its 22 stores in El Paso and nearby Las Cruces, N.M., and perhaps later at all 146 of its stores.

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The New York Times

Dining & Wine

WORLD | U.S. | N.Y./REGION | BUSINESS | TECHNOLOGY | SCIENCE | HEALTH | SPORTS | OPINION

Nudged to the Produce Aisle by a Look in the Mirror

Bruce Bennett for The New York Times

Colin R. Payne, a New Mexico State University professor, with Elisa Narvaiz, a customer, at a Lowe's grocery store in El Paso. He is trying to gently push shoppers into the produce section.

By MICHAEL MOSS



## Thank You

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E-mail: crp@nmsu.edu

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Click the "Reference" tab on www.CE.TodaysDietitian.com for supplemental materials associated with this webinar.

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