

**NUDGED:
BEHAVIORAL
ECONOMICS IN THE
HEALTHY RETAIL
ENVIRONMENT**

Working within the SNAP-Ed Context

**RNECE-SOUTH WEBINAR SERIES
UNIVERSITY OF NORTH CAROLINA AT CHAPEL
HILL**

TODAY'S PRESENTERS

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Professor of Nutrition, UNC Chapel Hill

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Investigator, BECR

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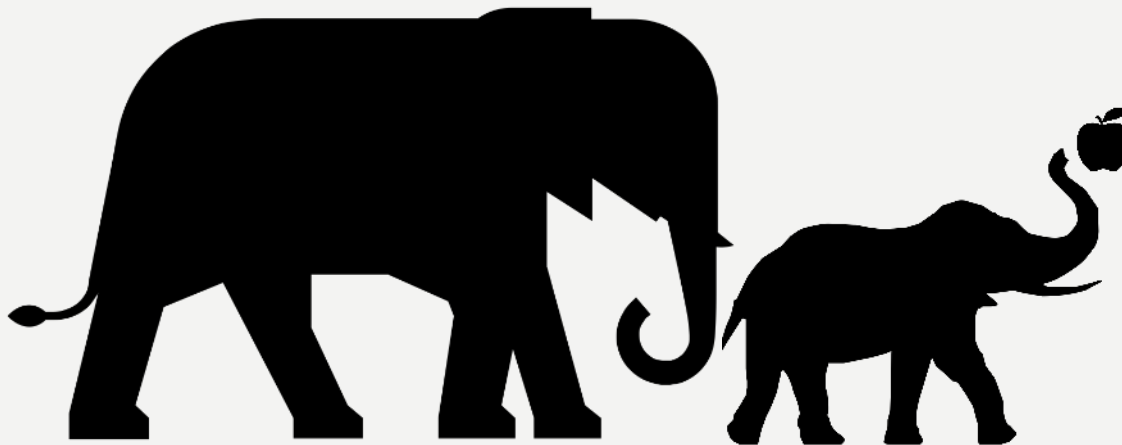
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* Special thanks to Leah Chapman, Doctoral Student

OUR PURPOSE:

To provide ways to incorporate strategies from the field of behavioral economics to boost the success of SNAP-Ed retail interventions to increase healthy food choices



AGENDA



- Introduction to Behavioral Economics
- Discussion of interventions
 - Pre-commitment Interventions
 - Interventions that Overcome Cognitive Biases
 - Nudges and Choice Architecture Interventions
 - Priming and Anchoring Interventions
- Allowable and unallowable SNAP-Ed activities & expenses
- Concluding remarks
- Q&A Discussion



INTRODUCTION TO BEHAVIORAL ECONOMICS

BASIC THEORY & APPROACH

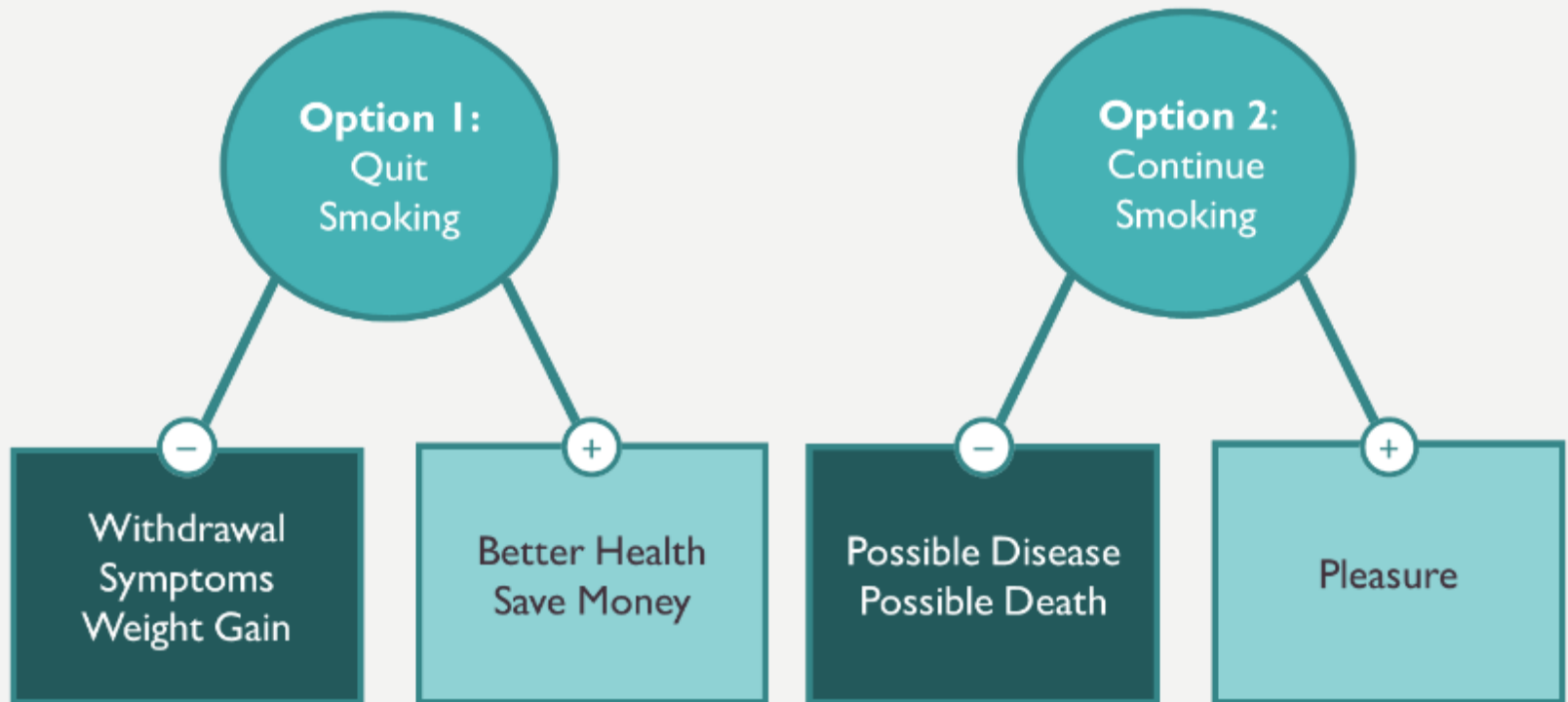
RATIONAL AGENT THEORY

- Humans are **fully rational** beings
- Human decision-making process: ⁸



- Humans are **utility maximizers** ⁸

RATIONAL AGENT THEORY EXAMPLE



Reference #8

WHAT BEHAVIORAL ECONOMICS ADDS

- Humans are **boundedly rational**, not fully rational.
- Humans take “reasoning shortcuts” that often lead to suboptimal decision-making.

The field of BE aims to “map out” and decipher these mental shortcuts to develop “solutions” that disable mental shortcuts and improve human decision-making.



APPLYING BEHAVIORAL ECONOMICS TO SNAP-ED RETAIL INTERVENTIONS

- **PRE-COMMITMENT INTERVENTIONS**
- **INTERVENTIONS THAT OVERCOME
COGNITIVE BIASES**
- **NUDGES AND CHOICE
ARCHITECTURE**
- **PRIMING AND ANCHORING
INTERVENTIONS**

PRE-COMMITMENT INTERVENTIONS

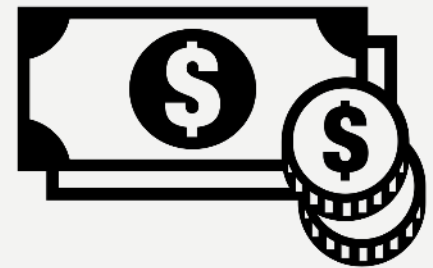
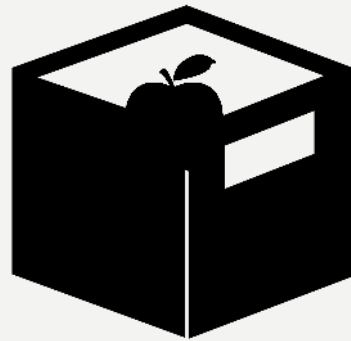
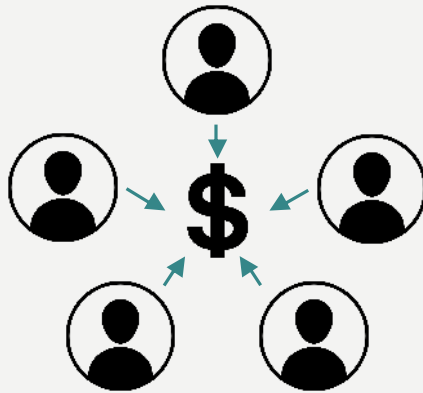


- What is pre-commitment?
- Why conduct pre-commitment interventions?
 - BE tells us that humans are prone to decision-making errors: ¹⁰
 - Dual Processing Theory (System 1 overpowers System 2)
 - Time Discounting
 - Present Bias



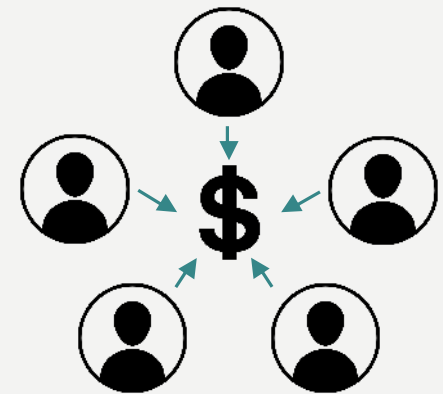
STRATEGIES

1. Group Buying Club
2. Pre-purchased healthy food boxes
3. Cash-back bonuses for healthy food purchases



STRATEGY 1: GROUP BUYING CLUB

- Pre-commit a certain amount of food dollars to healthy food each month through a group buying club
- People form “food clubs”
- Together, they place large orders and then split up the food as individual units
- The food is cheaper when bought in bulk



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “The number of adults/heads of households who set goals and/or changes in level of intent to practice food resource management behaviors.”

Allowable:

- The nutrition education/promotion materials that address SNAP-Ed topics and are for use with or distribution to the SNAP-Ed audience
- Technical assistance to set up a buying club

Unallowable:

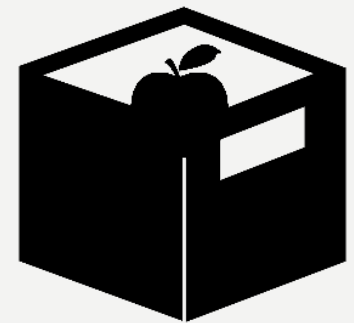
- Any material that endorses or promotes brand name products or retail stores
- Manufacturer’s or store (cents off) coupons

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To promote this intervention, SNAP-Ed implementers could:
 - Coordinate the intervention
 - Market the intervention to SNAP participants and those eligible
 - Provide education regarding the intervention, healthy food choice

STRATEGY 2: PRE-PURCHASED HEALTHY FOOD BOXES

- Similar to a Community Supported Agriculture (CSA) model
- Grocery stores or farmers provide healthy food boxes that customers pick up
- Boxes have been paid for ahead of time to 'pre-commit' to healthy food choices



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “Changes in agricultural PSE activities emphasizing farmers’ markets, direct-to-consumer agriculture, and farm-to school resulting from SNAP-Ed multi-sector partnerships at the local, state, territorial, or tribal level.”
 - SNAP-Ed supports CSA model so long as the CSA accepts SNAP-EBT

ALLOWABLE WITH SNAP-ED?

Allowable:

- The nutrition education/promotion materials that address SNAP-Ed topics and are for use with or distribution to the SNAP-Ed audience

Unallowable:

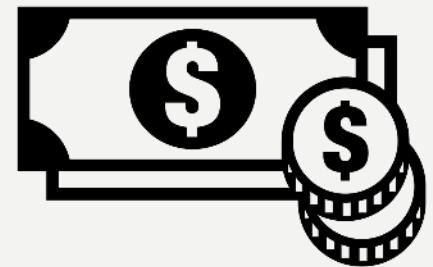
- Any material that endorses or promotes brand name products or retail stores
- Manufacturer's or store (cents off) coupons
- Financial incentives to community partners or retailers to support environmental or policy changes

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To promote this intervention, SNAP-Ed implementers could:
 - Coordinate the intervention
 - Market the intervention to SNAP participants and those eligible
 - Provide education regarding the intervention healthy food choice

STRATEGY 3: CASH-BACK BONUS FOR HEALTHY FOOD PURCHASES

- Cash-back bonus if SNAP users increase healthy food purchases by 5% each month
- Would require a partnership with the store or other partner to provide the bonus (*this is not a SNAP-Ed allowable expense*)
- Programs: *Double Bucks* or *Market Match*
- Research-based ¹³



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “The total amount of financial incentives (in dollars) provided to support healthy food retail in areas within census tracts where at least 50 percent of residents are SNAP-eligible.”

ALLOWABLE WITH SNAP-ED?

Allowable:

- Consultation with partner organizations on promoting organizational policy and practice changes that support healthy food and beverages, physical activity, and reduced sedentary behavior (e.g., entertainment screen time)
- Consultation and training with food retailers, farmers, food distributors, and farmers market managers on increasing access to and promotion of foods in line with the dietary guidelines

Unallowable:

- Manufacturer's or store (cents off) coupons
- Financial incentives to community partners or retailers to support environmental or policy changes

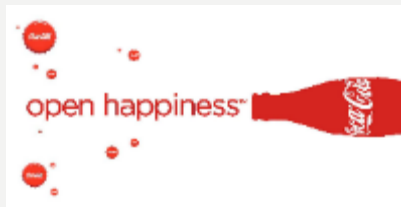
ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To promote this intervention, SNAP-Ed implementers could:
 - Find partners to provide the bonus
 - Coordinate the intervention
 - Market the intervention SNAP participants and those eligible
 - Provide education regarding the intervention, healthy food choice

OVERCOMING COGNITIVE BIASES

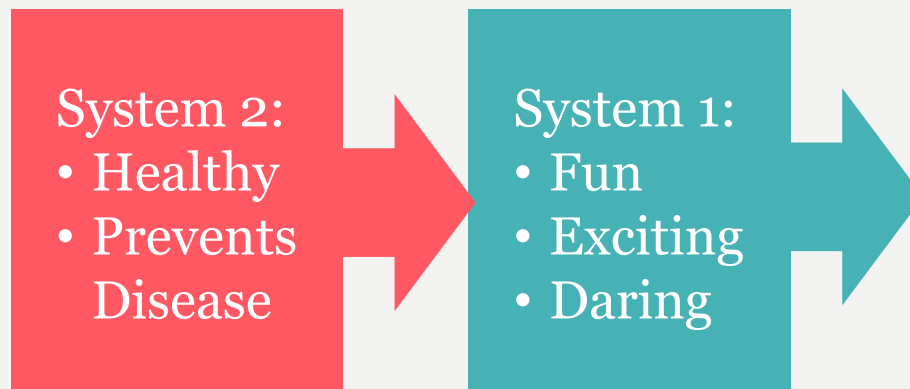


- What is a cognitive bias?
 - A tendency to think in a certain way that can lead to a deviation from rationality or good judgment ⁷
- Behavioral Economics research shows that humans often make decisions on an emotional reaction (System 1) rather than a calculation of risks and benefits (System 2) ⁷
- Feel Good = Low Risk ⁴



STRATEGY: SYSTEM 1 MESSAGING

- Food industry's marketing: System 1 ^{2,7}
- Public health messaging: System 2 ^{2,7}
- Switch to System 1 messaging ^{2,7}



- Create signage in stores: window/refrigerator clings, floor arrows, wobblers, shelf tags

ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “Campaigns may be designed for statewide implementation or for locally defined priorities. They use specific, action-oriented messaging with a unified look and feel, memorable taglines or calls to action, and distinctive logos. They are delivered in multiple channels and include objectives for population and community goals, not solely individual behavior change.”

ALLOWABLE WITH SNAP-ED?

Allowable:

- The nutrition education/promotion materials that address SNAP-Ed topics and are for use with or distribution to the SNAP-Ed audience
- Electronic, outdoor, indoor, transit, and print announcements of nutrition education- and obesity prevention-related activities for the SNAP-Ed target audience
- Appropriate social marketing programs in which messages are delivered in areas, venues, or using communication channels where at least 50 percent of the audience is eligible for SNAP-Ed

Unallowable:

- Any material that endorses or promotes brand name products or retail stores

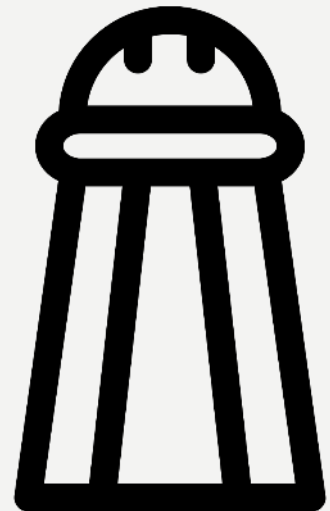
ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To promote this intervention, SNAP-Ed implementers could:
 - Develop messages: graphic design, message testing with SNAP population
 - Market the messages, placing them in the community, billboards, retail settings, etc.

NUDGES AND CHOICE ARCHITECTURE

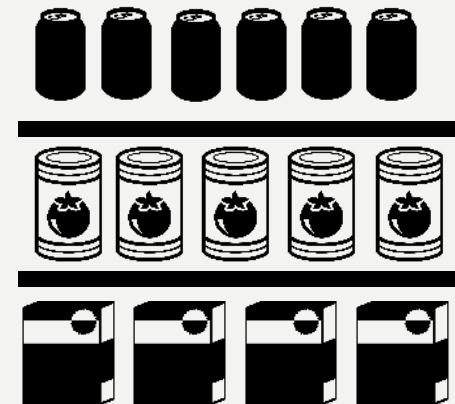
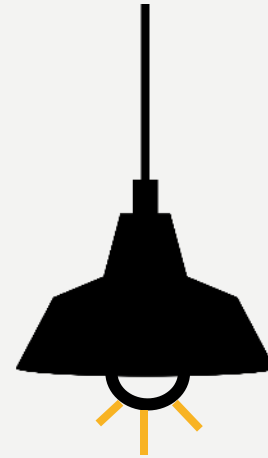
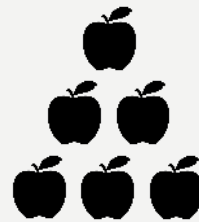


- What is a nudge?
 - A simple “adjustment” that alters people's behavior in a predictable way without forbidding any options ⁶
 - Salt shaker example
- We can be “choice architects” ⁶
 - Arrange items so that we help people make the best choice with the least effort ⁶



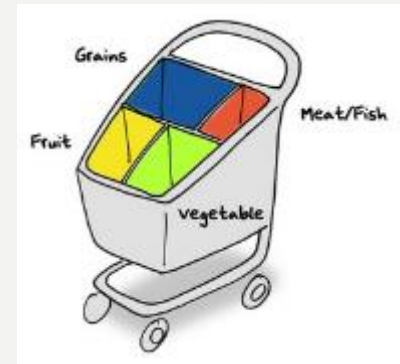
STRATEGIES

1. MyPlate shopping cart design
2. Healthy check-out lanes
3. Product placement on shelves
4. Better lighting for healthy items



STRATEGY 1: MYCARTS

- MyPlate shopping carts ³
 - Color-coded & Physically divided
 - Have a system installed so that when the cart reaches its “healthy threshold” it congratulates the customer
 - Drawback: Expensive
 - New carts would cost roughly \$30,000 per store (depending on # of carts)
 - Safeway, Inc. would need to spend \$40.05 million to introduce the carts at its 1,335 stores in the U.S.
- MyPlate stickers that cover the bottom of carts
- Pop in/pop out dividers



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “...pervasive and powerful marketing influences that only community residents, organizations and businesses can impact. When conducted in combination with other interventions, a change in food/beverage marketing is recommended by experts as necessary to achieve population-wide results.”

ALLOWABLE WITH SNAP-ED?

Allowable:

- The nutrition education/promotion materials that address SNAP-Ed topics and are for use with or distribution to the SNAP-Ed audience
- Electronic, outdoor, indoor, transit, and print announcements of nutrition education- and obesity prevention-related activities for the SNAP-Ed target audience
- Consultation and training with food retailers, farmers, food distributors, and farmers' market managers on increasing access to and promotion of the dietary guidelines

Unallowable:

- Costs associated with capital improvements to retail stores

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to the grocery stores to set up MyPlate in shopping carts
 - Promote the MyCarts through marketing and education campaigns
 - Pay for marketing and education materials, but not the carts themselves

STRATEGY 2: HEALTHY CHECK-OUT LANES

- Healthy and family-friendly checkout lanes display more nutritious fare rather than the usual chocolate bars, snacks, chips, and soft drinks ¹¹
- Displayed instead: ¹¹
 - Granola bars
 - Trail mixes
 - Dried fruit
- Target - 30 stores in October 2015 ¹¹
- Raley's - all 114 stores ¹¹



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- Approach Two – Comprehensive, multi-level interventions at multiple complementary organizational and institutional levels
- “Providing consultation, technical assistance, and training to SNAP-authorized retailers in supermarkets, grocery stores, a local corner or country store to provide evidence-based, multi-component interventions. SNAP-Ed providers may work with key partners on strategic planning and provide assistance with marketing, merchandising, recipes, customer newsletters, and technical advice on product placement. The retailer could provide produce, healthy nutrition items, and point of sales space for a **healthy checkout lane.**”

ALLOWABLE WITH SNAP-ED?

Allowable:

- Point-of-purchase or point-of-decision signage and other behavioral cues to action that promote healthy eating or physical activity choices
- Consultation and training with food retailers, farmers, food distributors, and farmers market managers on increasing access to and promotion of the dietary guidelines

Unallowable:

- Costs associated with the establishment and maintenance of environmental or policy changes outside of the scope of SNAP-Ed, such as infrastructure, equipment, space, land, or construction
- Costs associated with capital improvements to retail store
- Costs associated with refrigeration units or shelving in grocery or convenience stores

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to grocery stores to set up a lane, including providing input on foods to place there, educational signage to promote healthy food choices
 - Find partners to cover costs of refrigeration units

STRATEGY 3: PRODUCT PLACEMENT

- Rearrange products on shelves in stores so that healthy items are:
 - At eye level
 - By the cash register
 - On end-caps
 - By the restrooms
 - When you first walk into the store
- Rearrange products on shelves in stores so that less healthy items are at the very top or very bottom of shelves

ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- Approach Two - Comprehensive, multi-level interventions at multiple complementary organizational and institutional levels
- “Providing consultation, technical assistance, and training to SNAP-authorized retailers in supermarkets, grocery stores, a local corner or country store to provide evidence-based, multi-component interventions. SNAP-Ed providers may work with key partners on strategic planning and provide assistance with marketing, merchandising, recipes, customer newsletters, **and technical advice on product placement.** The retailer could provide produce, healthy nutrition items, and point of sales space for a healthy checkout lane.”

ALLOWABLE WITH SNAP-ED?

Allowable:

- Consultation and training with food retailers, farmers, food distributors, and farmers market managers on increasing access to and promotion of the dietary guidelines

Unallowable:

- Costs associated with refrigeration units or shelving in grocery or convenience stores

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to the grocery stores on product placement, including which items are healthier choices

STRATEGY 4: BETTER STORE LIGHTING

- Makes healthy items more appealing to customers with attractive light and placement ³



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “Commercial marketing technologies include market segmentation; formative research and pilot testing; commercial and public service advertising; public relations; multiple forms of mass communication including social media; the 4 Ps of marketing - product, price, placement, and **promotion**; consumer education; strong integration across platforms; and continuous feedback loops and course correction.”

Allowable:

- Consultation and training with food retailers, farmers, food distributors, and farmers market managers on increasing access to and promotion of the dietary guidelines

Unallowable:

- Costs associated with capital improvements to retail store such as the lighting itself

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to the grocery stores on lighting ideas, which items to highlight
 - Help stores to find partners to pay for lighting and installation

PRIMING AND ANCHORING INTERVENTIONS



- Judgments and choices are often *anchored* on irrelevant cues. ⁹
 - i.e. grocery cart size in the 1950s versus today
 - i.e. end-cap displays: “You should buy 10 of these!”
- We can “prime” people and affect their decision-making. ⁹



STRATEGIES



1. End-cap displays for healthy food
2. Create scarcity and impose limits
3. Punch cards with “freebies”



STRATEGY 1: END-CAP DISPLAYS

- An end-cap is a display for product(s) placed at the end of an aisle
- End-caps increase sales

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- CVS example



ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “Commercial marketing technologies include market segmentation; formative research and pilot testing; commercial and public service advertising; public relations; multiple forms of mass communication including social media; the 4 Ps of marketing - product, price, placement, and **promotion**; consumer education; strong integration across platforms; and continuous feedback loops and course correction.”

Allowable:

- Point-of-purchase or point-of-decision signage and other behavioral cues to action that promote healthy eating or physical activity choices

Unallowable:

- Any material that endorses or promotes brand name products or retail stores

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to the stores on:
 - Which products to move
 - Where to move the products
 - Signage to use

STRATEGY 2: CREATE SCARCITY

- Impose “limits” on sales of healthy items
 - People will buy more!
 - Campbell’s Soup example
- Offer products “for a limited time only”
 - Change signage from
 - “Peaches- \$2.99/lb” to “Fresh peaches for a limited time only!”
 - “Local squash- \$1.39/lb” to “Local squash- limit 6 per customer”

ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- “Commercial marketing technologies include market segmentation; formative research and pilot testing; commercial and public service advertising; public relations; multiple forms of mass communication including social media; the 4 Ps of marketing - product, price, placement, and **promotion**; consumer education; strong integration across platforms; and continuous feedback loops and course correction.”

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Unallowable:

- Any material that endorses or promotes brand name products or retail stores

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to the grocery stores on which products to promote, messages to use, and placement.

STRATEGY 3: PUNCH CARDS WITH “FREEBIES”

- Fruit and vegetable punch cards
- For each fruit or vegetable bought, they get a punch
- After 10 punches, the customer gets a free fruit or veggie of their choice
 - Would require partnership with store to provide the free item (SNAP-Ed funding cannot be used)
- The behavioral economics twist: each card comes with 2 free punches ⁹
 - The Endowed Progress Effect: research-based ¹
 - People want freebies
 - Two stamps feels like you received something “free”

ALLOWABLE WITH SNAP-ED?

SNAP-Ed language to support:

- Promotional media (e.g., point-of-purchase prompts, videos, Web sites, newsletters, posters, kiosks, brochures, educational incentive items)

Allowable:

- Consultation and training with food retailers, farmers, food distributors, and farmers market managers on increasing access to and promotion of whole grains, fruits and vegetables, and low-fat dairy

Unallowable:

- Distribution of nutrition education and physical activity reinforcement items costing over \$4.00 each

ACTIVITIES FOR SNAP-ED IMPLEMENTERS

- To conduct this intervention, SNAP-Ed implementers could:
 - Provide technical assistance to the grocery stores on which products to promote, how to run the program
 - Find partner stores/funding to offer the “freebies”
 - Create and provide the punch cards to the stores

SNAP-ED & HEALTHY RETAIL

- **FNS's Healthy Corner Store Guide**
 - <http://www.fns.usda.gov/healthy-corner-stores-guide>
- **Associated SNAP-Ed Evaluation Framework indicators**
 - ST5: Need and Readiness
 - ST6: Champions
 - ST7: Organizational Partnerships
 - MT5: Nutritional Supports
 - LT5: Nutrition Supports Implementation
 - LT9: Resources Leveraged
 - LT10: Planned Sustainability
 - MT12: Social Marketing
 - LT12: Food Systems

Coming Soon!
SNAP-Ed Toolkit Website



ONE LAST POINT

ETHICAL CONSIDERATIONS

THE ETHICS OF BEHAVIORAL ECONOMIC INTERVENTIONS

- Isn't it “consumer manipulation?” Not really!
- These interventions do not **disable** choice, they **guide** choice
 - i.e. salt shaker example: smaller holes, but people can just do more shakes
 - i.e. soda ban: people can just buy two 16 oz. sodas instead of one 32 oz.
- Individual freedoms are NOT taken away

TREATING SNAP CUSTOMERS DIFFERENTLY

- The USDA does not allow SNAP participants to be treated differently in the retail setting without a waiver
- SNAP users are protected against stigma
- Implement interventions and programming that target the general shopping population, but partner with stores in low-income areas with high SNAP customer percentages.
- Consult with SNAP-Ed Regional Coordinator if you think a waiver may be needed.



IN CLOSING

WHAT DID WE LEARN?

CONCLUDING REMARKS



- Rational Agent Theory says humans are:
 - fully rational
 - make decisions based on calculations of risks and benefits
- Behavioral Economics says humans are:
 - BOUNDEDLY rational
 - Use “mental shortcuts” to make decisions
- Behavioral Economists map out these mental shortcuts
- We can use behavioral economists’ research to develop interventions that counteract mental shortcuts and improve humans’ decision making to encourage healthy food choice by SNAP recipients

CONCLUDING REMARKS

REVIEW OF INTERVENTIONS WE DISCUSSED:

- Pre-commitment Interventions:
 - Group Buying Clubs
 - Pre-purchased healthy food items
 - Cash back bonuses for healthy food purchases
- Interventions that Overcome Cognitive Biases:
 - Switch public health messaging from System 2 to System 1
- Nudges and Choice Architecture:
 - MyCarts
 - Healthy Check-out Lanes
 - Healthy product placement on shelves
 - Better store lighting for healthy items
- Anchoring and Priming Interventions:
 - End-cap displays for healthy food
 - Create scarcity and impose limits
 - Punch cards with “freebies”

REFERENCES

1. Eyal, Nir. *Hooked*. New York: Penguin Group, 2014. Print.
2. "Food Fight: Marketing Healthy Snacks like Junk Food." *CBSNews*. CBS Interactive, November 24th, 2013. Web. Accessed September 2nd, 2016. <<http://www.cbsnews.com/news/food-fight-marketing-healthy-snacks-like-junk-food/>>.
3. Harrington, Elizabeth. "USDA Suggests Changes to Grocery Stores to 'Nudge' Consumers to Eat Healthy." *The Washington Free Beacon*, July 15th, 2014. Web. Accessed September 2nd, 2016. <<http://freebeacon.com/issues/usda-suggests-changes-to-grocery-stores-to-nudge-consumers-to-eat-healthy/>>.
4. Johnson, E., & Tversky, A. (1983). Affect, generalization, and the perception of risk. *Journal of Personality and Social Psychology*, 45, 20–31.
5. Kahneman, Daniel. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux, 2011. Print.
6. Kawachi, Ichiro. "Anchors, Default Options, and Choice Architecture." Explaining Health Behavior- SBS 503. Boston, Massachusetts. March 30th, 2015. Lecture.
7. Kawachi, Ichiro. "Emotions and Decision Making." Explaining Health Behavior- SBS 503. Boston, Massachusetts. March 25th, 2015. Lecture.
8. Kawachi, Ichiro. "Explaining Health Behavior- Insights from Behavioral Economics" Explaining Health Behavior- SBS 503. Boston, Massachusetts. March 23rd, 2015. Lecture.
9. Kawachi, Ichiro. "Framing Effects & Loss Aversion." Explaining Health Behavior- SBS 503. Boston, Massachusetts. April 1st, 2015. Lecture.
10. Kawachi, Ichiro. "Incentives vs. Commitments." Explaining Health Behavior- SBS 503. Boston, Massachusetts. April 8th, 2015. Lecture.
11. Pawlowski, A. "Kids Can't Resist Candy? 'Healthy Checkout Lanes' to the Rescue." *TODAY Parents*. TODAY, December 9th, 2015. Web. Accessed September 2nd, 2016. <<http://www.today.com/parents/kids-cant-resist-candy-stores-try-junk-food-free-healthy-t60621>>.
12. Scamell-Katz, Siemon. *The Art of Shopping: How We Shop and Why We Buy*. London: LID, 2012. Print.
13. Schwartz, J., D. Mochon, L. Wyper, J. Maroba, D. Patel, and D. Ariely. "Healthier by Precommitment." *Psychological Science* 25.2 (2014): 538-46. Web.



QUESTIONS?

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