

Improving the food environment in low income settings: Approaches of the Healthy Stores projects

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Topics

- Background
 - Approaches for modifying the food environment
 - Challenges of modifying the low income urban food environment
- Baltimore City food environment
- Previous programs
 - Baltimore Healthy Stores
 - Baltimore Healthy Carryouts
 - Baltimore Healthy Eating Zones
- Ongoing program
 - B'More Healthy Communities for Kids
- Challenges and Lessons Learned



Policy

Food Environment and Obesity

- **Fewer supermarkets = higher BMI, chronic disease rates** (Morland 2006; Bodor JN 2010)
- **Greater distance to grocery stores = higher BMI** (Inagami et al 2006)
- **More small stores and prepared food sources = higher BMI and chronic disease rates** (Bodor JN 2010 Maddock, 2004)

Ways to Change the Food Environment (1)

- Changing access to foods within retail food stores & prepared food sources by:
 - Decreasing availability of less healthy foods
 - Increasing availability of healthy foods in small stores
 - Changing the physical location of foods (e.g., store layout)
 - Store renovations (e.g., adding FV coolers)
 - Manipulating price

Ways to Change the Food Environment (2)

- Changing access to foods within neighborhoods by:
 - Building new supermarkets
 - Developing farmer's markets
 - Improving transportation
- Changing setting for provision of information (e.g., POP promotions)

Ways to Change the Food Environment (3)

- **Policy**

- Setting store standards/requirements
- Menu labeling
- Rezoning
- Taxes (E.g., SSB tax)

- **Work in multiple settings/ institutions at the same time**

- Integrating interventions in food stores, restaurants, schools, worksites, etc.

Ways to Change the Food Environment (4)

- Other approaches:
 - Improving food networks (distributors, producers, retailers)
 - Improving local production (producers)
 - Increasing nutrient content of foods (manufacturers)
 - Changing packaging of foods (manufacturers)





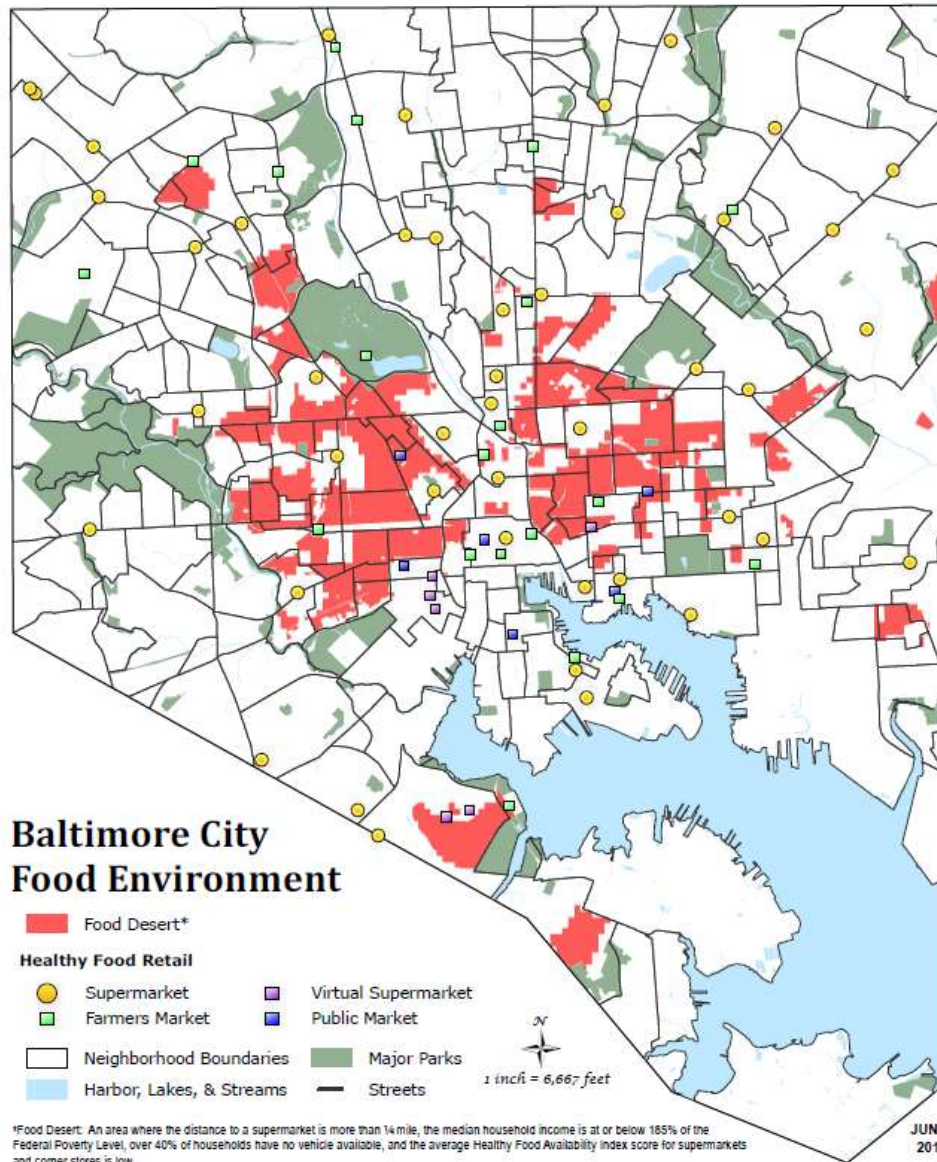


Challenges for working in low income urban food environment

- Low access to healthy foods (availability, price, location) → “food deserts”
- High access to unhealthy foods → “food swamps”
- High rates of crime, safety issues
- Few other resources, weak school system, small tax base → but other resources DO exist



Baltimore 2012 Food Desert Map



Definition:

- ¼ mile from grocery store
- At or below 185% federal poverty level
- Low vehicle availability
- Low Healthy Food Availability Score based on the Nutrition Environment Measurement Survey

*Food Desert: An area where the distance to a supermarket is more than ¼ mile, the median household income is at or below 185% of the Federal Poverty Level, over 40% of households have no vehicle available, and the average Healthy Food Availability Index score for supermarkets and corner stores is low.



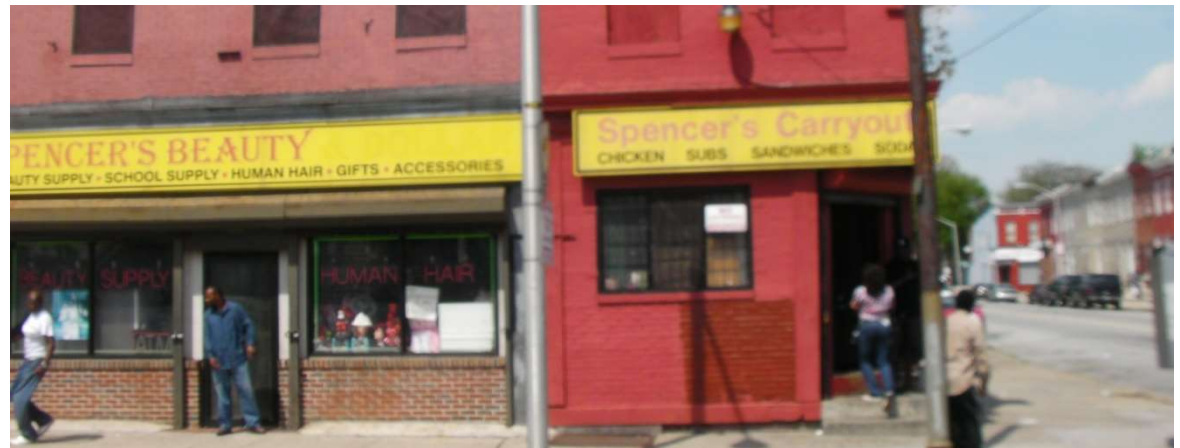
Corner stores





Behind the glass

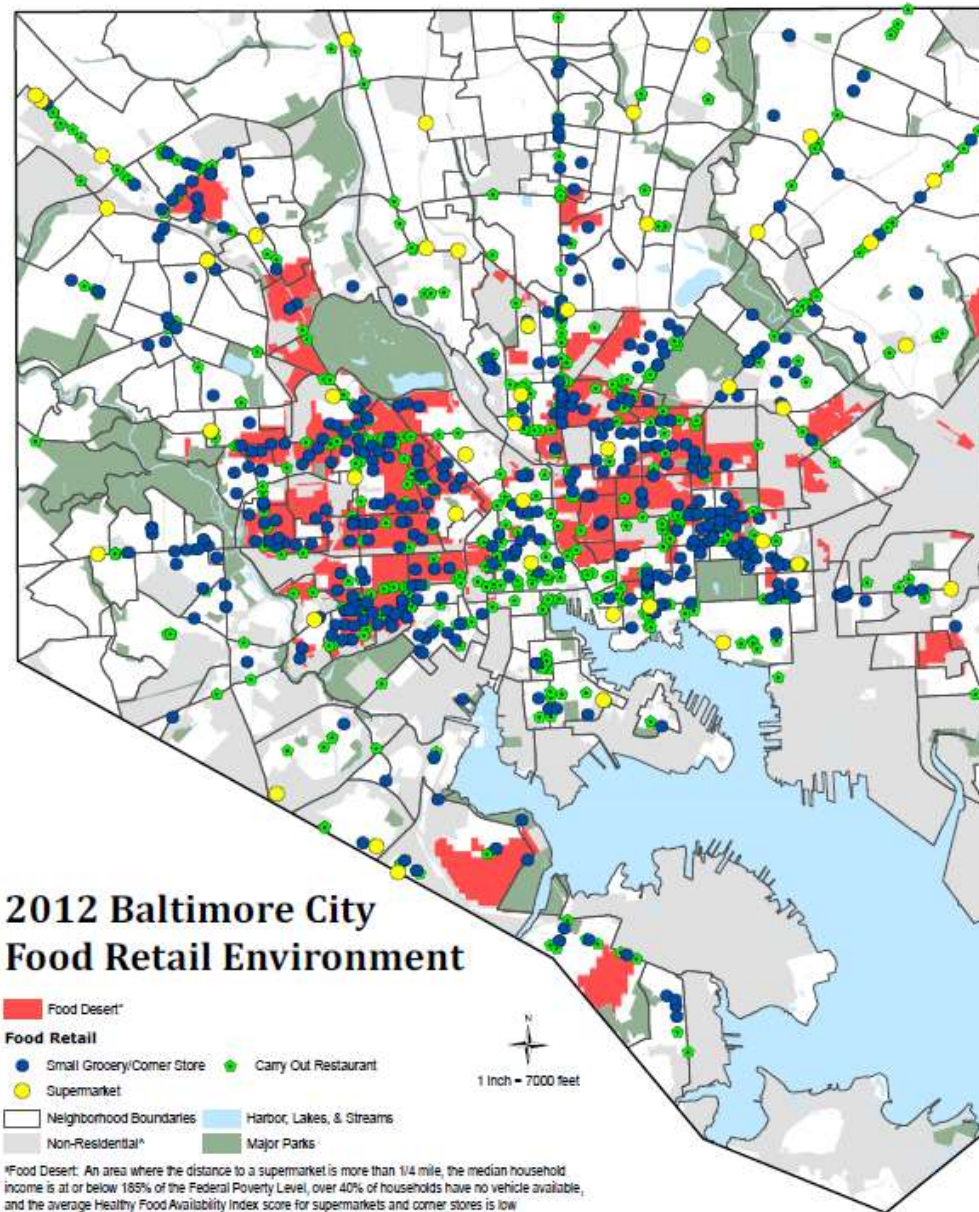
Carryouts



Interior of Carry-outs



Food Deserts overlaid with corner stores and carry out restaurants



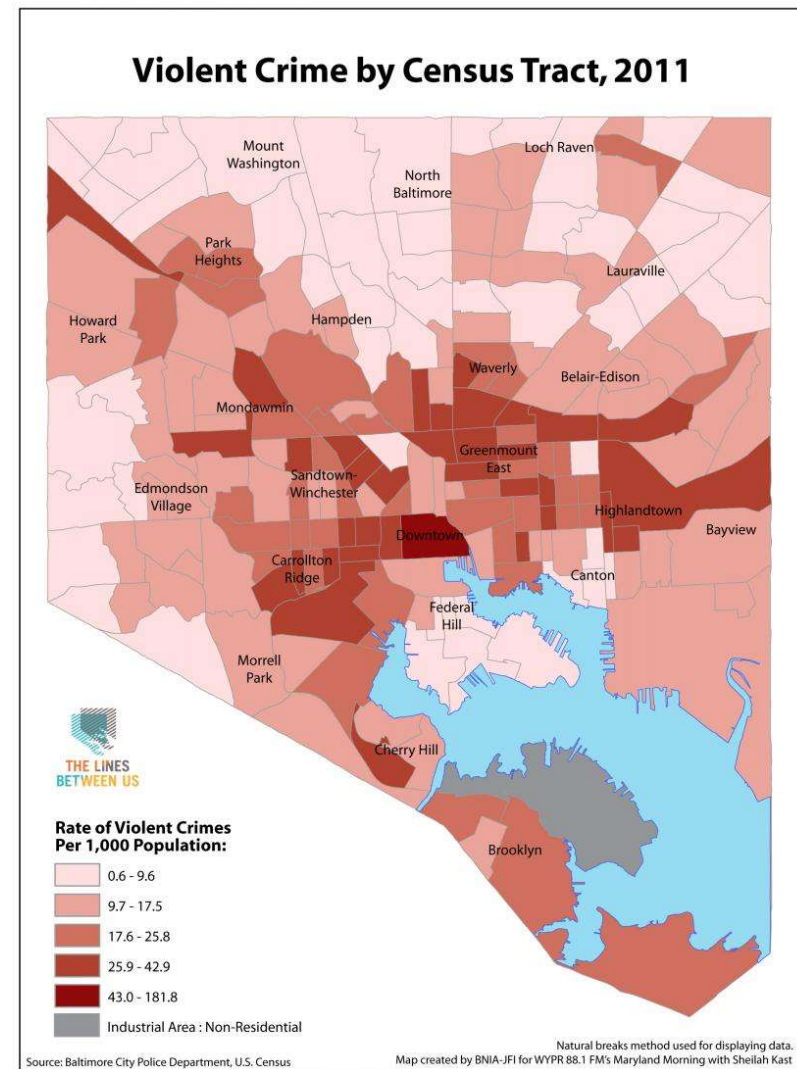
*Food Desert: An area where the distance to a supermarket is more than 1/4 mile, the median household income is at or below 185% of the Federal Poverty Level, over 40% of households have no vehicle available, and the average Healthy Food Availability Index score for supermarkets and corner stores is low (measured using the Nutrition Environment Measurement Survey).

* Not included in study: Non-residential areas include Colleges and Universities, Hospitals, Industrial Areas, Highways, Railways, Stadiums, and Cemeteries.

MARCH

Key Finding: Crime IS associated with food swamps

- Each additional crime incident per 100 people was associated with an increase in the food swamp score by 0.13 percentage points ($p=0.05$)
- (After accounting for concurrent change in neighborhood racial diversity, neighborhood SES, and neighborhood population size)
- Mui et al, under review



Wholesaler



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Indoor Markets



Farmer's markets



Great Kids Farm



Recreation Centers



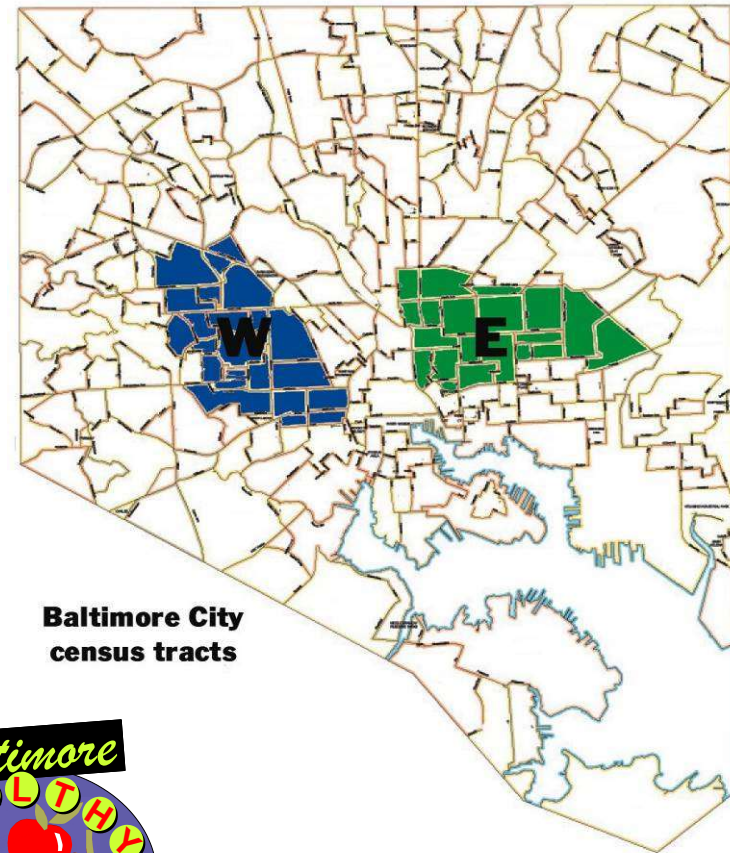
Baltimore City Schools Food Service



Study 1. Working in Small Stores

Baltimore Healthy Stores

- East Baltimore: intervention area
- West Baltimore: comparison area
- Store sample
 - 2 supermarkets/area
 - 6-7 small stores/area
- Consumer sample
 - ~87 respondents/area



Community workshops





Increasing supply: Corner stores stock healthier foods

- 1-3 new foods per store per phase
- Start with "low-hanging fruit"
- Incentives
 - Stocking guidelines
 - Promotional materials to create demand
 - Incentive card to wholesaler
 - Provide small supply



Increasing Demand: Visual Materials

Have a **SNACK ATTACK** without the **FAT!**

The illustration shows a woman with a surprised expression, her hand near her mouth. The background is a vibrant pink and yellow pattern with icons of various snacks: pretzels, nuts, and fruit slices.

Baltimore Healthy Stores

Quench Your Thirst with Water

SAVE MONEY, DRINK WATER!

COLA 33-44 cents per quart

DIET BEER 20 cents per quart

DID YOU KNOW?
The Baltimore City Department of Social Services can help you get food stamps, temporary cash assistance and medical care. To find out if you qualify, go to your local social services center. To find your local center, call 410-361-4600.

Water has zero calories and costs less than soda. Why not go for the water when you're thirsty?

ADVANTAGES OF WATER

1. Really quenches your thirst
2. Keeps up your body fluids so you perform better
3. Far cheaper and better for your health than soda

SAVE MONEY & CALORIES BY CHOOSING WATER!

Baltimore Healthy Stores & A

Q: Aren't diet sodas only for people with diabetes or other health conditions?

A: Diet sodas are for anyone who wants to consume less sugar or calories. This includes diabetics, but can include any health-conscious person.

How much sugar is in your soft drink*?

*Amount of sugar in a 12 ounce soda
1 sugar cube = 1 teaspoon or 4 grams

Orange or cream soda:	10 cubes
Mountain Dew:	8 cubes
Cola, Root Beer, or Sprite:	10 cubes
7-Up:	10 cubes
Diet sodas or water:	ZERO Sugar, ZERO Calories!

NOTE: If you are drinking more than 12 ounces of soda, you are consuming more sugar than pictured here. For every 4 grams of sugar listed, you are consuming a teaspoon of sugar.

Baltimore Healthy Stores

HOW MANY CALORIES ARE YOU DRINKING?

No Sugar → No calories

9 tps of sugar → 150 calories

1 teaspoon of sugar = 16 calories. 9 teaspoons = ??

The illustration shows a woman in a yellow shirt talking to a child. There are icons of a glass of water, a diet soda can, and a regular soda can. A speech bubble asks about the calories in 9 teaspoons of sugar.

Interactive Sessions in large and small food stores



Impact on Stocking and Sales

	Stocking Score (range 0-10)			Sales Score (range 0-10)		
	Intervention	Comparison	Significance	Intervention	Comparison	Significance
Baseline	5.9 ± 2.0	6.8 ± 1.6	NS	4.4 ± 1.8	5 ± 1.5	NS
Post-phase	8.3 ± 1.0	6 ± 1.8	0.004	7.1 ± 2.0	5.8 ± 1.8	0.05
Post-intervention	7 ± 2.0	5.5 ± 1.5	0.009	6.4 ± 1.8	4.7 ± 1.5	0.003

Song et al, Public Health Nutrition, 2009

Consumer Results

- N=85 respondents measured pre and post
- After adjustment for baseline value, age, sex and SES:
 - Significant impact on food preparation methods and frequency of purchase of promoted foods
 - Positive trend for healthy food intentions

Baltimore Food Policy Advisory Committee (Food PAC)

- Early 2009: Baltimore City Food Policy Task Force develops report with recommendations
- Late 2009: Holly Freishtat, MS, CN, named Baltimore City Food Policy Director
- Early 2010: Baltimore Food PAC forms, begins to implement recommendations of the task force
- BCHD Received grant to support Baltimarket program
 - 18 corner stores
 - 3 supermarkets
 - 75 youth mentors



Lessons Learned

- We can get small stores to increase stocking of healthier foods, and show impact on consumer food choices
- Sustainability of small store interventions possible in Baltimore
- BUT: people in Baltimore's low income food environments get food from many places

Study 2. Changing the prepared food source environment:

Baltimore Healthy Carryouts



Prepared Food Sources in Baltimore

- A total of 144 Prepared Food Sources (PFSs) were observed (ground-truthing method) in low-income neighborhoods of Baltimore (Lee et al. 2010)
 - **72% carryouts (n=104)**
 - 15% corner stores with deli/take-out
 - 10% Fast food restaurants
 - 5% Sit-down restaurants

Carryouts: Food establishments selling ready-to-eat food and beverage for off-premises consumption (Zoning Code of Baltimore City. 1-123.1)



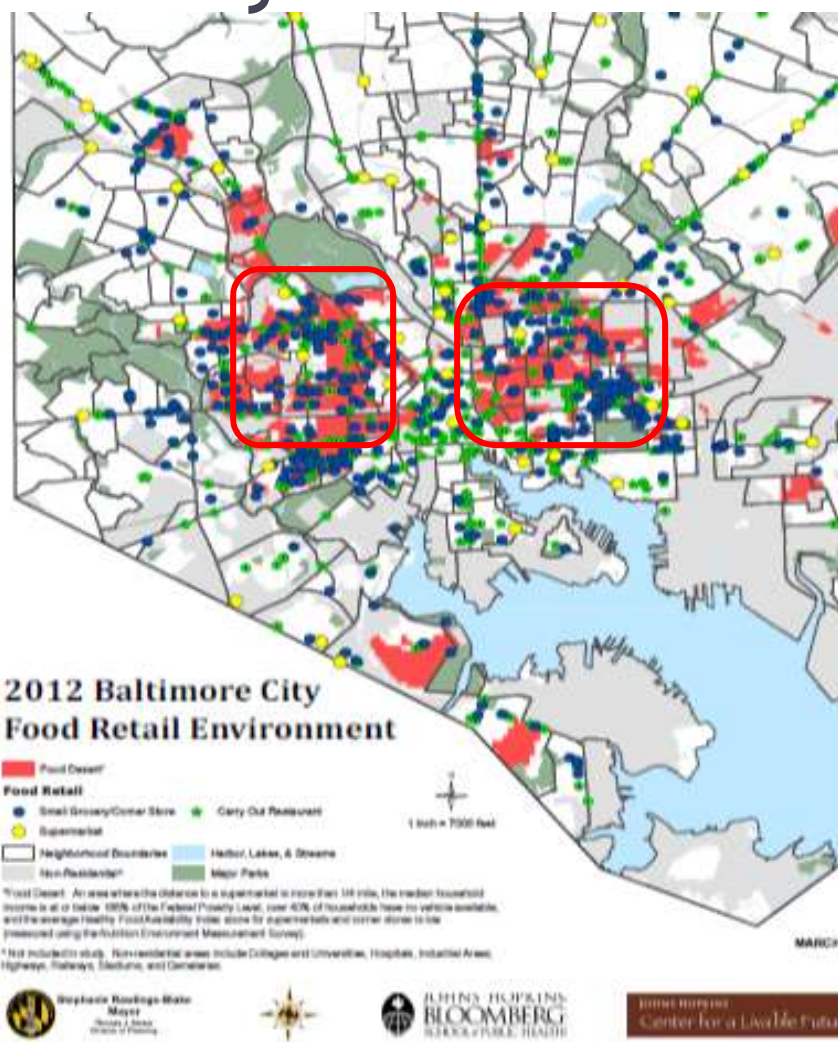
Exterior & Interior of Carryouts



SUB SPECIALS		WINGS SPECIALS	
8" STEAK SPECIAL	5.99	5 WINGS FRENCH FRIES & SODA	7.00
FISH SPECIAL		10 WINGS FRENCH FRIES & SODA	12.99
OLD CUT SPECIAL		4 WINGS FRENCH FRIES & SODA	8.00
CHEESE BURGER SPECIAL		10pc CHICKEN NUGGETS W/FF	5.99
Green pepper Cheese steak		4 WINGS	4.80
Mushroom Cheese steak		SHRIMP BASKET W/FF	5.99
Corn Dogs		2 BONE LAKE TROUT	4.99
Porkchop sandwich	\$3.99	2 BONE LAKE TROUT	5.99
Porkchop combo with bread, fries and potato salad	\$6.99	2 BONE LAKE TROUT	6.99



Study Design: Baltimore Healthy Carryouts Pilot Trial



Intervention group
 N = 4

1st generation
 Korean
 American owned
 carryouts (N=2)

African
 American owned
 carryouts (N=2)

Comparison group
 N = 4

1st generation
 Korean
 American owned
 carryouts (N=2)

African
 American owned
 carryouts (N=2)

- Matching variables : ethnicity, location, physical environment of the carry-out

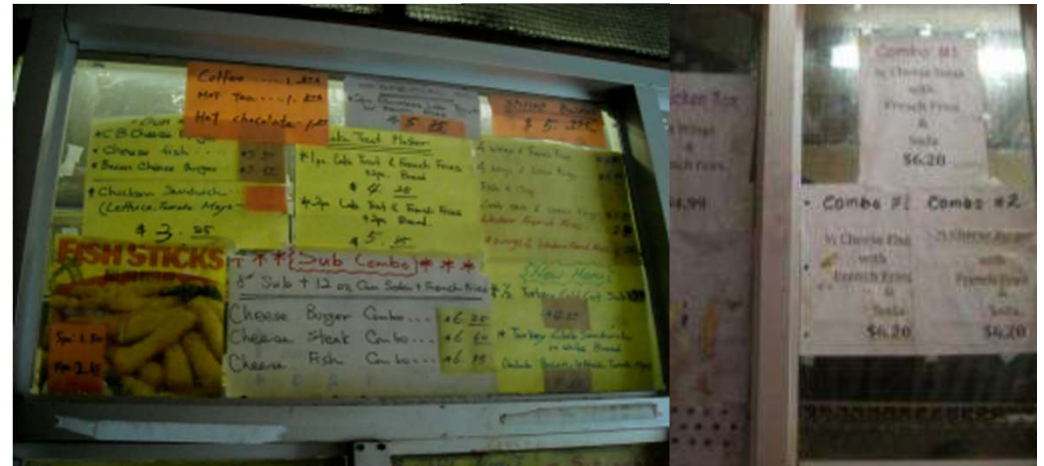
Phase 1: Modified Menu Boards & Menu Labeling



- Owners were reluctant/concerned about changing what they sell
- Many do not have resources to change menu boards



- Allowed us to build rapport/trust with owners



Phase 1: Modified Menu Boards & Menu Labeling



Carry-Out Menu

Hot Sandwiches

	Sub	Sand (Bun)
Cheese Steak	\$	\$
Chicken Cheese Steak	\$	\$
Mushroom Cheese Steak	\$	\$
Shrimp Cheese Steak	\$	\$
Sukiyaki	\$	\$
BLT	\$	\$
Grilled Cheese	\$	\$
Cheese Burger	\$	\$
Double Cheese Burger	\$	\$
Bacon Cheese Burger	\$	\$
Cheese Fish	\$	\$
Grilled Chicken	\$	\$
Lake Trout and Cheese	\$	\$
Grilled Turkey and Bacon	\$	\$

Cold Sandwiches

	Sub	Sand (Bun)
Cold Cut	\$	\$
Italian Cold Cut	\$	\$
Turkey and Cheese	\$	\$
Turkey Bacon	\$	\$
Ham and Cheese	\$	\$
Chicken Salad	\$	\$
Chicken Bacon Salad	\$	\$
Tuna Salad	\$	\$
Turkey Club	\$	\$
Ham Club	\$	\$

Chicken Wings

3 Wings	\$	\$	\$
4 Wings	\$	\$	\$
5 Wings	\$	\$	\$
6 Wings	\$	\$	\$

Sides

	Small	Large
French Fries	\$	\$
Western Fries	\$	\$
Onion Rings	\$	\$
Mozzarella Sticks (5pc.)	\$	\$
Mini Crab Sticks (each)	\$	\$

Salads

Garden Salad	\$
Grilled Chicken Salad	\$
Chef Salad	\$

Fish

Lake Trout	
Small	\$
Large	\$

Look for the leaf  for a fresh and delicious choice!

Cold Cut Sandwich **Grilled Chicken Sandwich** **Garden Salad**



Try these fresh options!

Healthier options were highlighted with a leaf logo

Healthier menu options were also promoted with photos

Phase 2: Healthy Sides & Healthy Beverages

- Promoted currently available healthy sides & beverages
 - Collard greens, corn, salads, soups, water, diet soda, 100% fruit juice
- Introduced new healthy sides
 - Yogurt, fresh fruits, fruit cups, baked chips
- Provided initial stocks of healthy sides



Phase 3. Affordable Healthy Combo Meals

- Improving food preparation methods
 - Provide an indoor grill to implement grilled chicken

- Healthy combo meal promotion with price reduction
 - Owners agreed to reduce up to \$2.50 per healthy combo meal without compensation
 - Combo meal with free baked chips

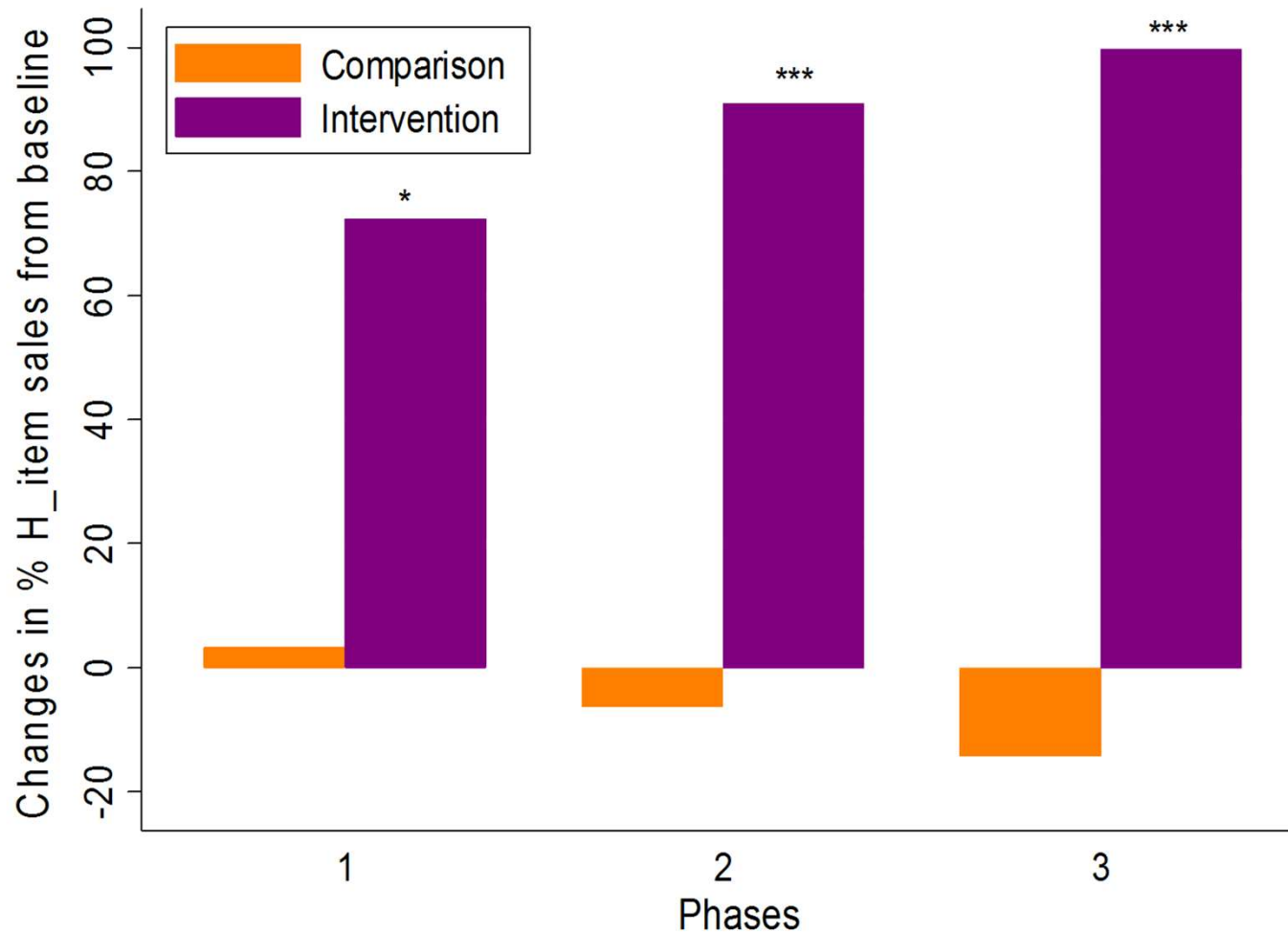


Evaluation Method

- Weekly sales receipt collection (February – September 2011, 32 weeks)
 - Trained data collectors visited carryouts every week
 - A total of 186,654 units of sales were collected

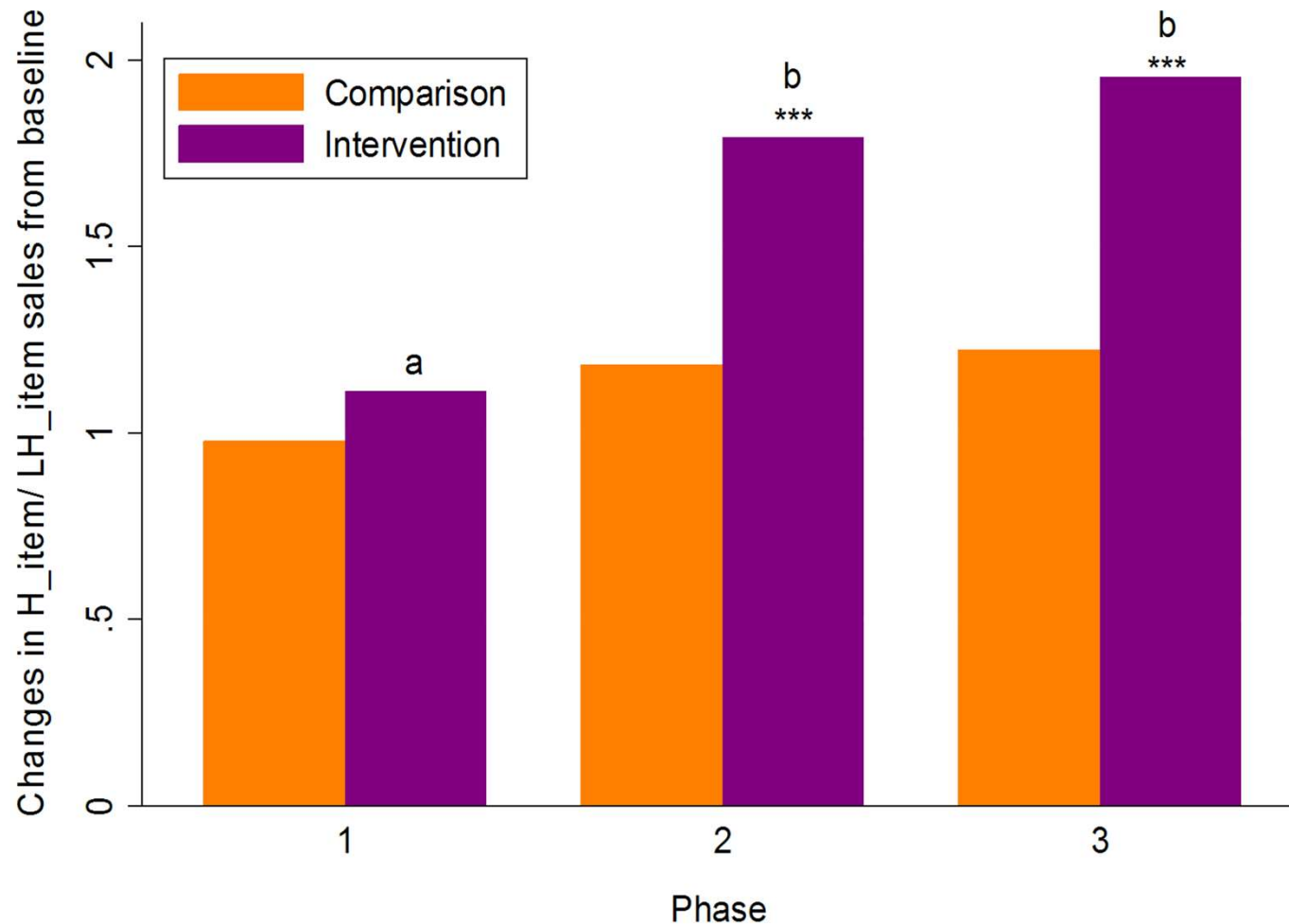


Changes in percentage of healthy food sales from baseline by intervention phases



$p < 0.05$, *** < 0.001 , Independent t-test comparing Intervention vs. Comparison
H_item: Healthy item sales

Changes in the ratio of healthy to less-healthy items sales from baseline

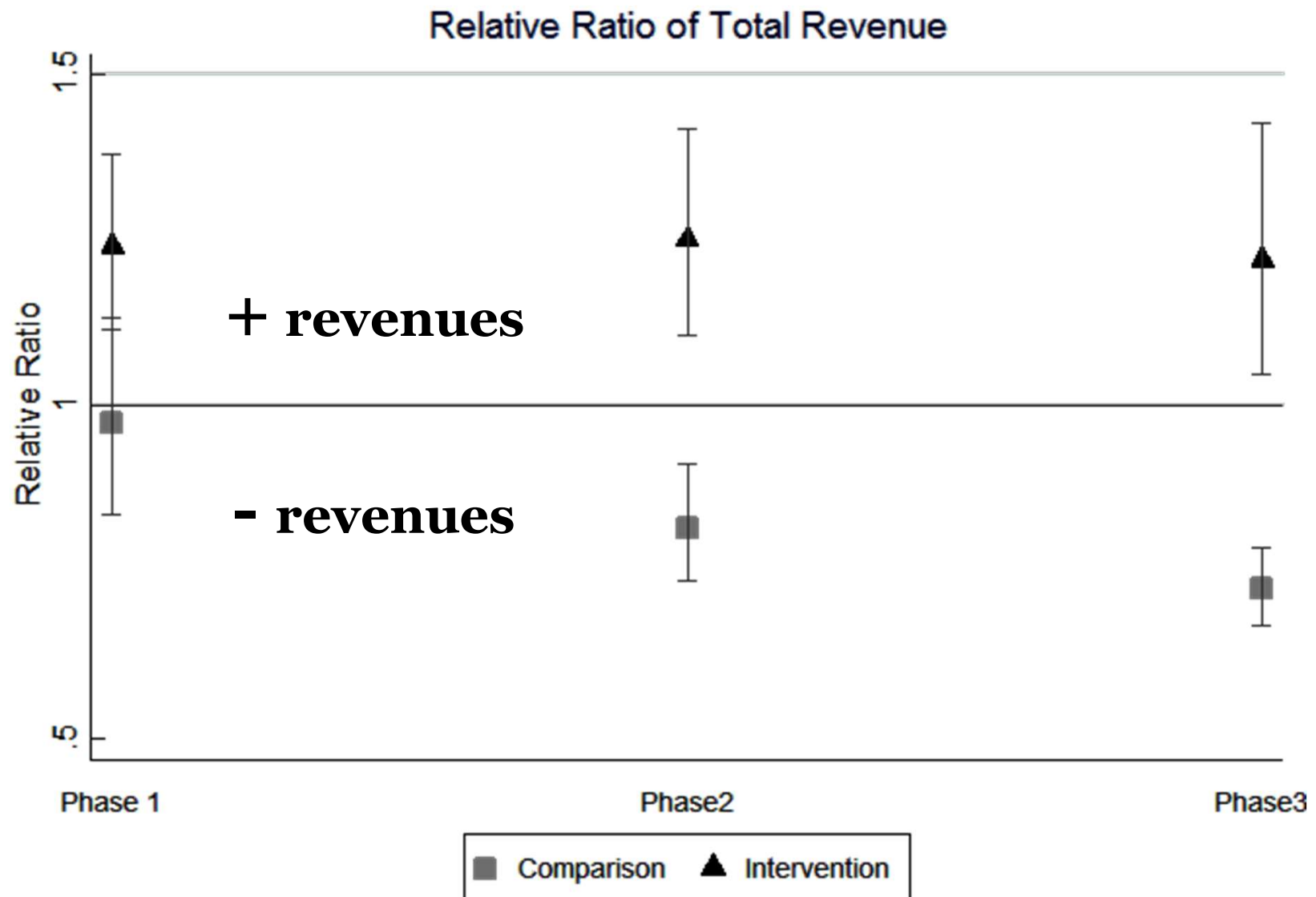


* $p < 0.05$, *** $p < 0.001$ comparing intervention to comparison, independent t-test

^{abc}Different lettered superscripts indicate significant differences ($p < 0.05$) across intervention phases

H_item: Healthy item sales, *LH_item*: Less-healthy item sales

Change in Revenue Relative to Baseline



Application



Baltimore Food Policy Initiative

Get Fresh Lexington



Fresh Roasted Turkey
Carved to your order or try one of our delightful sandwiches

- Fresh Carved Turkey Sandwich
- Ham & Turkey Sandwich
- Italian Turkey Sandwich
- Turkey in Crust Skin Sandwich
- The Gobbler
- Thanksgiving Sandwich

Hot & Smart Specials :: Low Calorie!

- Turkey Dinner
- Turkey BBQ Sandwich

Krause's

Late Fare

<p>Sides S M L</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Stuffing <input checked="" type="checkbox"/> Mashed Potatoes <input checked="" type="checkbox"/> Vegetables 	<p>Soups S M L</p> <ul style="list-style-type: none"> <input type="checkbox"/> Turkey Chili <input type="checkbox"/> Maryland Crab <input type="checkbox"/> Soup of the Day
<p>Fresh Salads S L</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Garden Salad <input checked="" type="checkbox"/> Chef Salad 	<p>Drinks</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Spring Water <input type="checkbox"/> Sodas <input type="checkbox"/> Fruit Juices

Fresh Option!

Fresh Sandwiches

- Chicken Breast Salad
- All White Albacore Tuna Salad
- Shrimp Salad
- Turkey Salad

Original Sandwiches

- Pilgrimage Cold Cut
- Slim Kruben
- Smoked Turkey Breast
- Turkey Pastrami
- Turkey Salami
- Turkey Ham
- Turkey Bologna
- Honey Ham

Ask for your meal to be made with substituted bread, low-fat mayonnaise and whole wheat bread!

- add cranberry sauce
- add cheese or sprouts
- make into a sub



Look for the leaf for a fresh choice







Lessons Learned

- We can get small carryouts to change, and show impact on sales and consumer food choices
- Sustainability of carryout interventions possible in Baltimore
- BUT: Can we combine these approaches? How to reach children?

Study 3. Multi-institutional Approaches: Baltimore Healthy Eating Zones Pilot



- Creation of “healthy eating zones” in and around 6 Baltimore recreation centers (with 6 comparison)
- Worked with corner stores and some carryouts
- Increasing availability of healthy foods
- Point of purchase signage
- Interactive sessions

- Peer educators
- Cooking classes for kids in recreation centers
- Recreation center staff training

Funded by RWJ HER, Round 2

Baltimore Healthy Eating Zones



... be in love with them!

Youth materials developed by Kids On The Hill



Interactive activities in recreation centers





Impact on Obesity

Changes in obesity	By Direct Exposure				By Intervention		
	Low	Med	High	Sig.	Comparison	Intervention	Sig.
BMI Percentile (entire sample)	-1.74	1.44	-2.91	0.34	0.22	-1.88	0.33
BMI Percentile (Baseline BMI>85)	-1.2	-2.85	-2.7	0.1	-0.78	-3.15	0.051
BMI Percentile (Baseline BMI>85, Girls only)	-1.1	N/A	-3.1	0.016	-0.13	-3.16	0.03

Lessons Learned

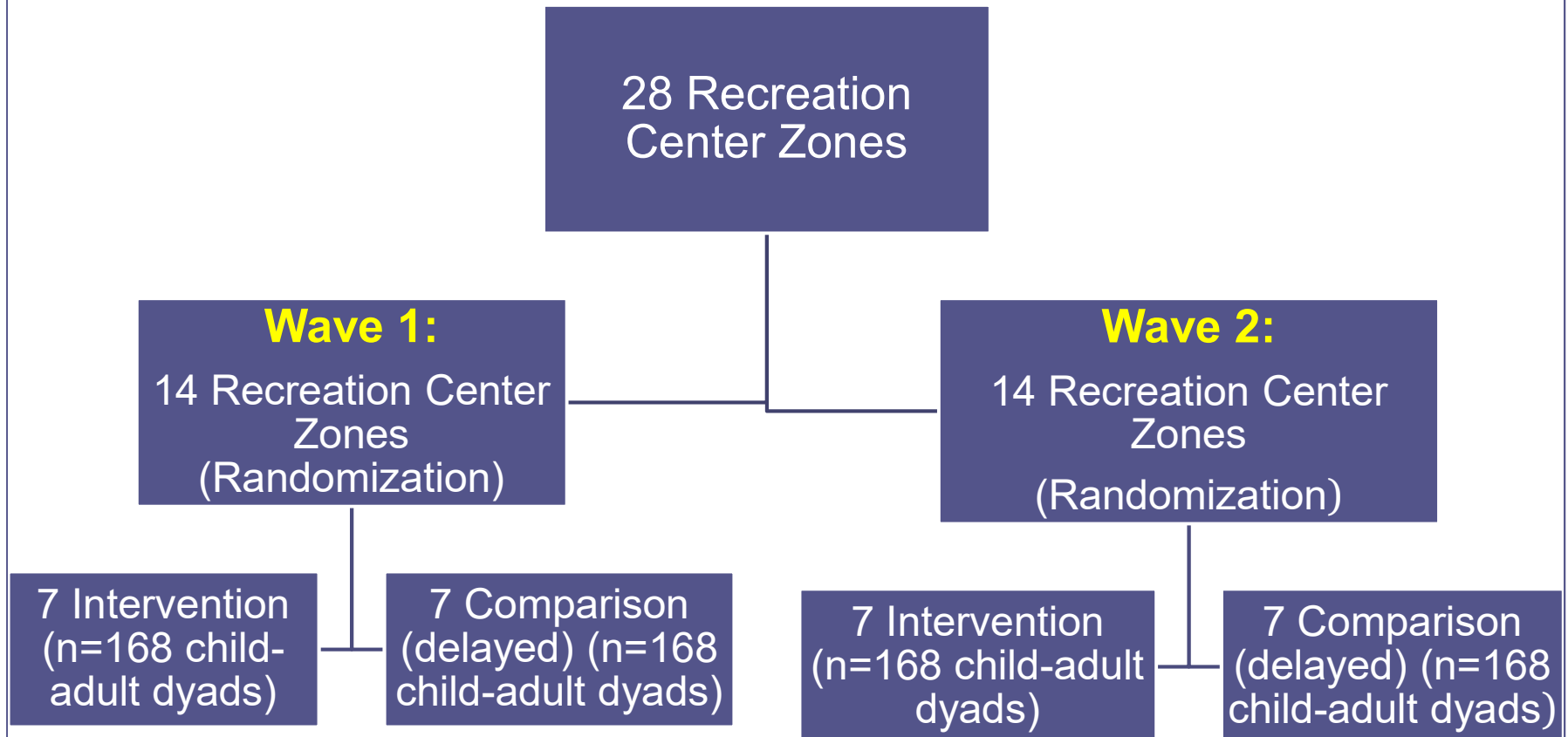
- Feasible to intervene in multiple venues simultaneously in Baltimore
- Some health impacts shown
- BUT: Can we sustainably impact the Baltimore food environment at multiple levels? What are the best approaches/levels for intervention? How can they be integrated effectively? How to engage policymakers?

Study 4. B'More Healthy Communities for Kids

1. To implement a MLMC community-based obesity prevention program, operating at multiple levels of the Baltimore City food system
 2. To increase affordability, availability, purchase, and consumption of healthy foods in 14 low-income minority neighborhoods (with 14 comparison)
 3. To examine implementation at each level through a detailed process evaluation
 4. To evaluate impact on multiple levels: healthy food pricing and availability; adult food purchasing, preparation and obesity; and child obesity, diet and psychosocial factors
-



Study Design



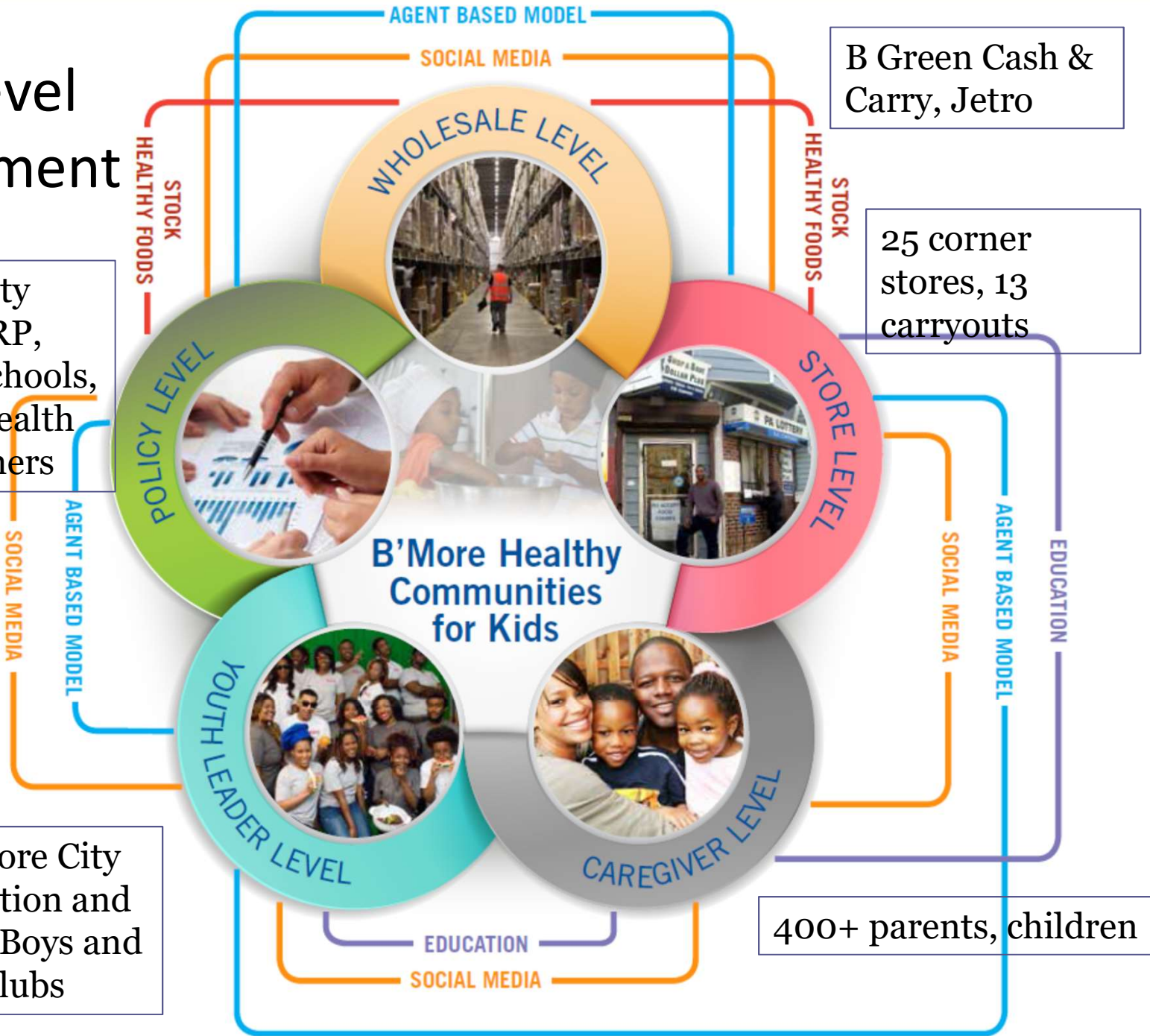
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Multi-level Engagement

Baltimore City Council, BCRP, Baltimore Schools, Baltimore Health Dept and others

Baltimore City Recreation and Parks, Boys and Girls Clubs



B Green Cash & Carry, Jetro

25 corner stores, 13 carryouts

400+ parents, children

Youth Leaders at Recreation Centers



BALTIMORE CITY
RECREATION & PARKS



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GLOBAL OBESITY
PREVENTION CENTER



BOYS CLUBS
OF AMERICA



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

BHCK Youth-Leader Program

- 45-60 minute sessions with the youth (ages 10 and up) conducted by youth-leaders
- Nutrition sessions focus on 4 topics:
 1. Healthy drinks
 2. Smart snacks
 3. Breakfasts
 4. Healthy cooking
- Sessions occur every other week for 6 months



Corner Stores



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BLOOMBERG SCHOOL
of PUBLIC HEALTH

Phase 1: Smart Drinks



Phase 2: Smart Snacks



Phase 3: Smart Cooking



STEP UP YOUR WATER
WITH REFRESHING FRUIT FLAVOR

facebook.com/bhck1
instagram.com/bhck1
twitter.com/bhck1



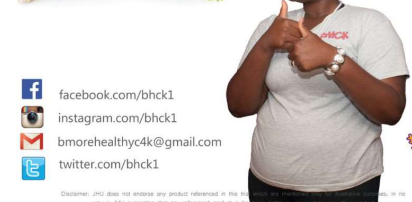
HUNGRY FOR A SALTY SNACK
TRY POPCORN, PRETZELS, OR BAKED CHIPS

CHOOSE SNACKS WITH 6 GRAMS OF FAT OR LESS



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instagram.com/bhck1
twitter.com/bhck1

REFUEL WITH VEGETABLES
CANNED OR FROZEN ARE GOOD FOR YOU TOO



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instagram.com/bhck1
bmorehealthy4k@gmail.com
twitter.com/bhck1



Disclaimer: JHU does not endorse any product referenced in this post. All in the world is 4k! #bmorehealthy4k

Features

- Increased stocks of healthy foods
- In-store interactive sessions
- Shelf labels, posters and other visual materials
- Video trainings for store owners
- Incentives for store owners
 - Wholesaler gift cards
 - Structural incentives



Carryouts

Phase 1: Menu Redesign



Phase 2: Healthy Drinks & Sides



Phase 3: Healthy Combo Meals



Wholesaler Intervention

- Developed stocking sheets with wholesalers' managers
- Advertise healthy products in monthly circulars with BHCK logo and modest discounts
- Regular meetings with wholesale managers
- Regular feedback on achievements



Social Media: Facebook & Instagram Targeted community



B'more Healthy Communities for Kids
Published by Bengücan Günen [?]
Like This Page · February 23 ·

Do you want to make sure your kids get their protein AND greens before they leave for school? Try this eggs over spinach recipe:

1. Lightly cook 1 cup tomato and 6 cups spinach in a pan with 1/2 cup water.
2. Make wells in spinach, and crack eggs in.
3. Cover and allow to cook until eggs are done to your liking. The spinach should be wilted and water evaporated.
4. Place spinach and egg o...

See More

Tag Photo Add Location Edit

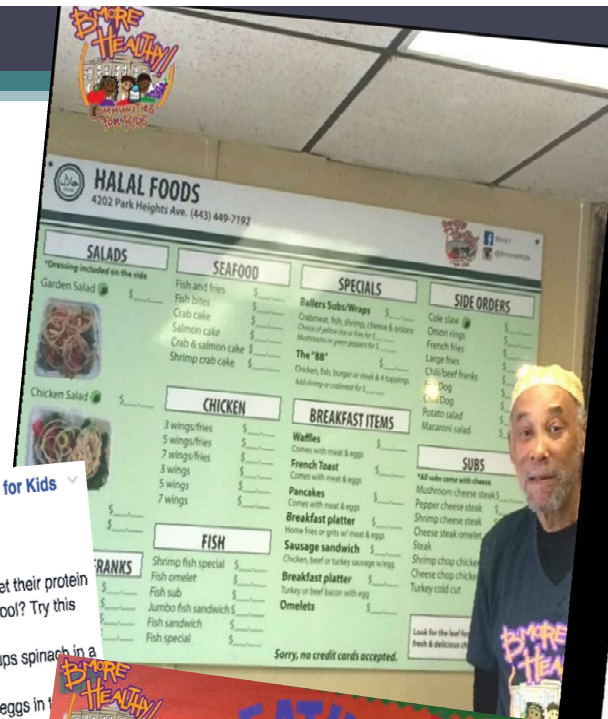
Like Comment Share

10

Rose Teresa I love eggs and bread for breakfast!
Unlike Reply Message · 7:07am

Julia Tyler Yummy, I'm go
Unlike Reply Message · 8:26am

Write a comment...



Have you noticed the new menu board at Halal Foods, 4202 Parks Heights Ave, Baltimore? It now has a new leaf logo to highlight their fresh menu items: garden salad, chicken salad and coleslaw. Next time you go there, look for the leaf logo and try their delicious, fresh items!

#Bmore4Kids #CarryOut #ReachYourPotentialBHCK #CookSmartBHCK #Baltimore #community #HealthyAlternative #FreshFood #HealthyKids #LookForTheLeaf #obesity

Tag Photo Edit

Like Comment Share

240

Top Comments

32 shares 12 comments

Helga Moore Love their Fish sub with special sauce yummy
Unlike Reply Message · 4 · March 27 at 8:53pm

Honey Davis I'm glad they have a menu, but delicious food.
Unlike Reply Message · 1 · March 28 at



bmore4kids
James D. Gross Recreational Hall

74 likes

bmore4kids Check out the new #Bmore4Kids bulletin board at JD Gross Rec Center! What does eating healthy look like for you? Comment below!

#ReachYourPotentialBHCK #CookSmartBHCK #RecCenter #Baltimore #community #EatHealthy #nutrition #youth #leaders

splittingheads How do I get involved? X

Text Messaging

Targeted intervention evaluation sample

Date range:



03/15/2016 - 03/31/2016

Sent Message:

(BHCK Msg) Do u know how to read food lal

Sent Message: (BHCK Msg) Do u know how to read food labels for sodium level? Please reply yes or no.

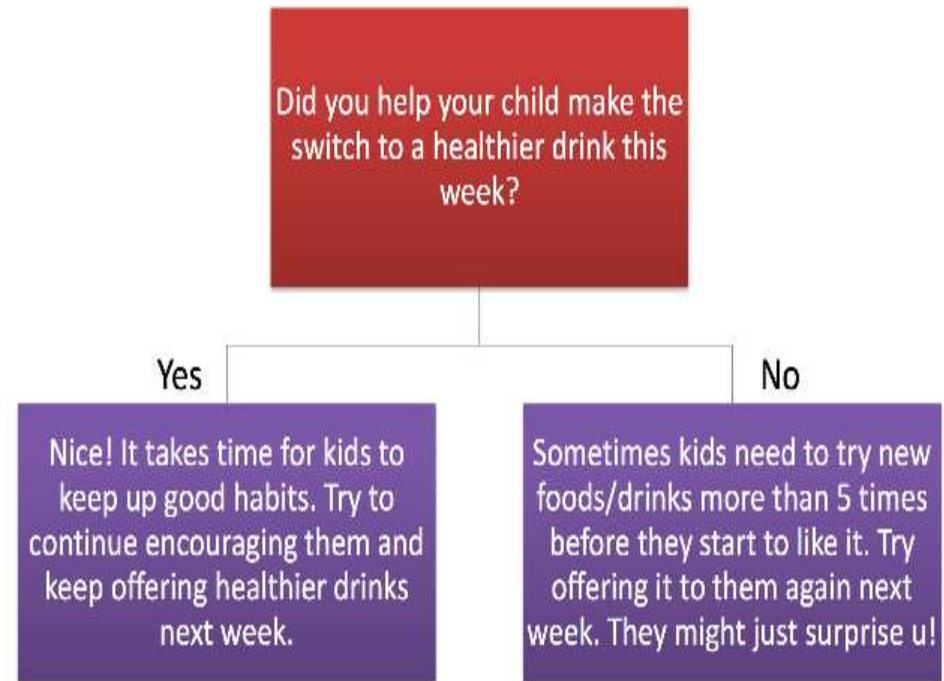
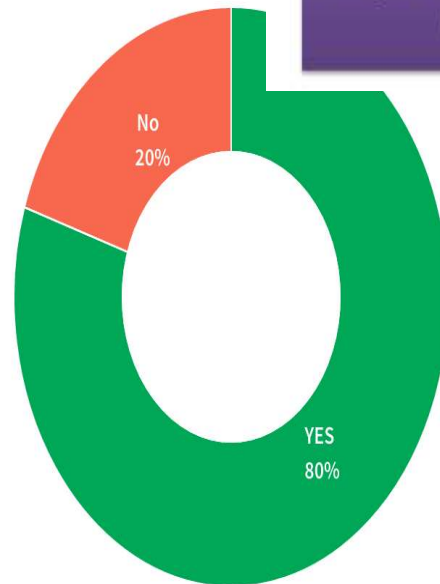
Total Sent: 74

Yes Response: 8

No Response: 2

Unrecognised Response: 0

Response Rate: 13.513513513513514%



Policy Working Group Meetings

10 meetings w/ city stakeholders, since kick-off in July 2013

30+ working group members, representing various sectors:

- City Council
- City Health Department
- Baltimore City Public Schools
- Family League
- Recreation and Parks
- Wholesalers
- Academia



Baltimore City Councilman
Carl Stokes



Baltimore City Councilman Bill
Henry



Baltimore City
Councilman Pete Welch



Baltimore City Food Policy
Director Holly Freishtat



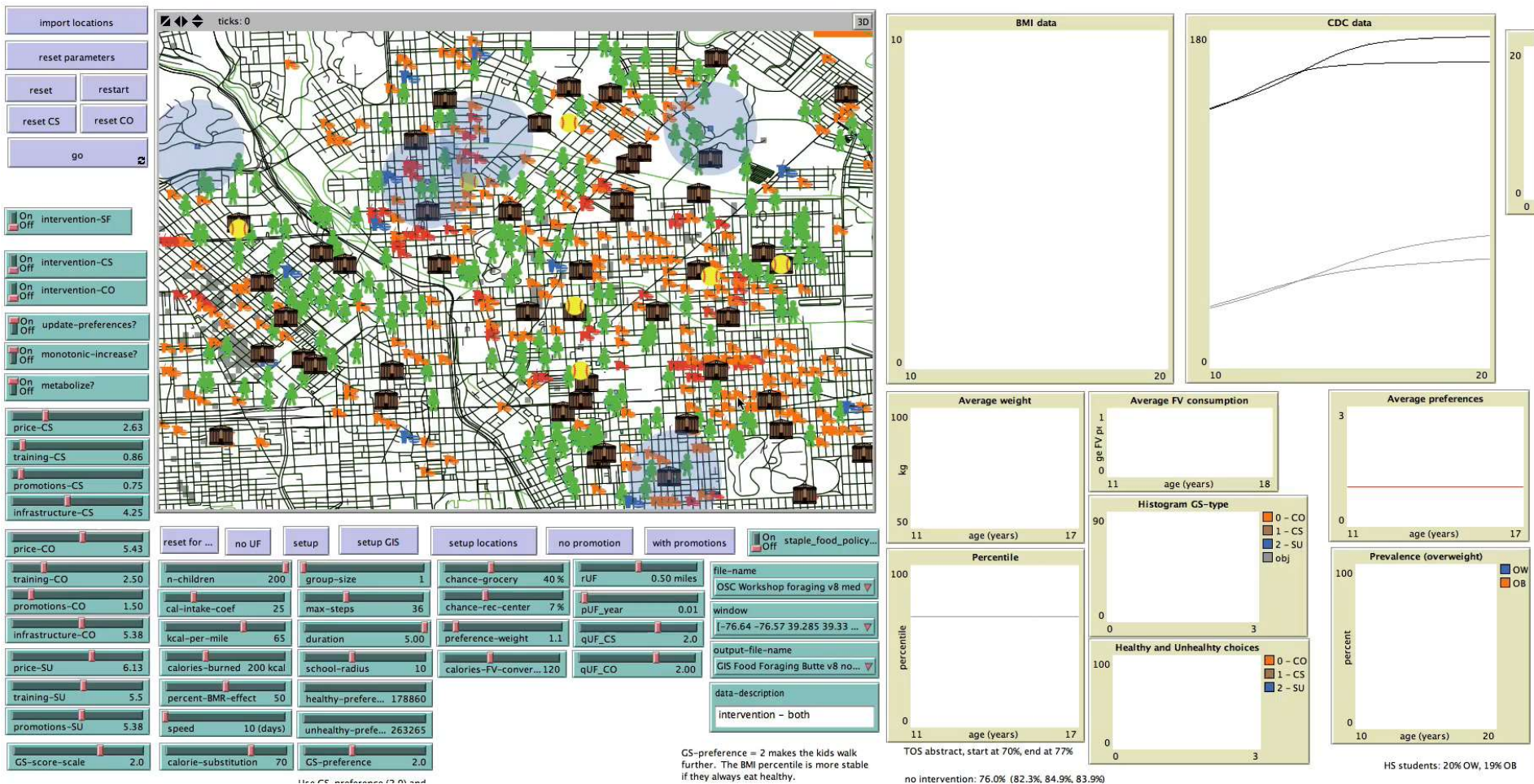
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Policy

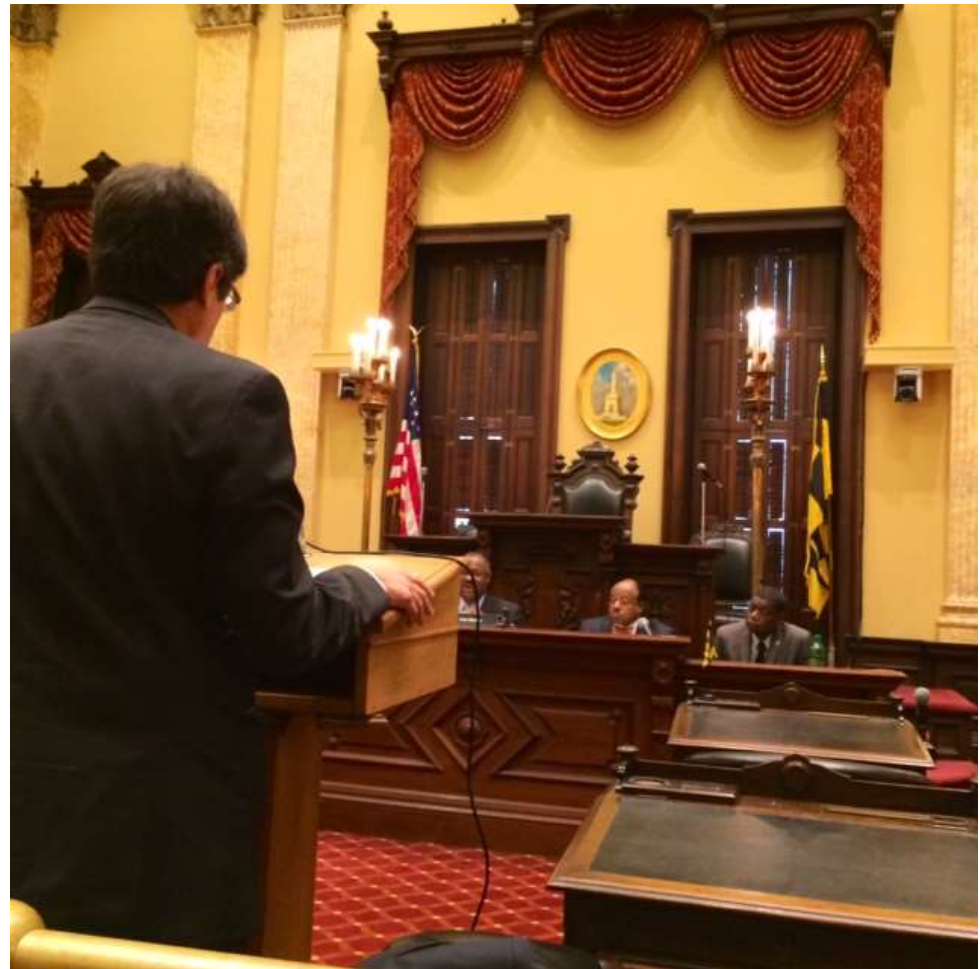
- Working with key stakeholders:
 - To develop and build the evidence base to support policies for a healthier food environment in Baltimore City
 - To sustain BHCK activities
- Develop simulation models to aid stakeholder decision-making

BLIFE Model: Low income AA children after school food foraging



Bill Approved: Property Tax Credits for Urban Agriculture

- Provide 90% tax credit to owners of vacant lots if they will convert them to urban farms
- BLIFE model modified to provide evidence for the bill



Sustainability of BHCK

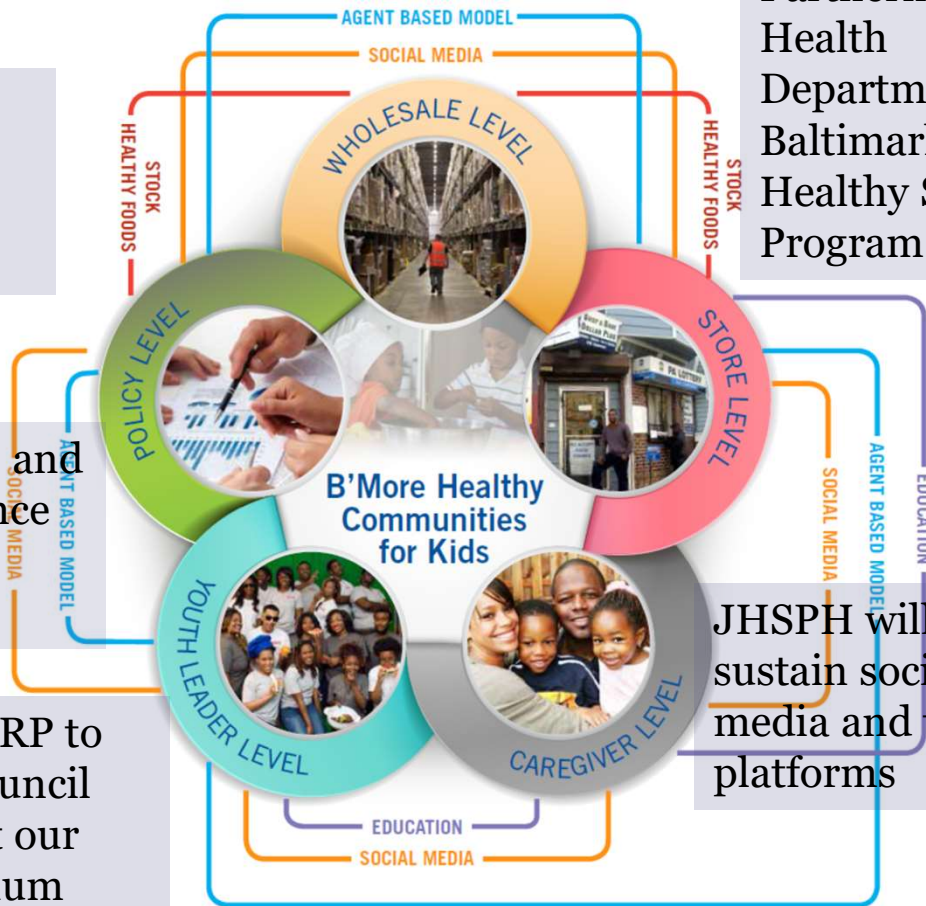
Working with wholesalers to develop a sustainable training and food discount program for storeowners

Partnering with policy makers and stakeholders to provide evidence for new policies; JHSPH will maintain quarterly meetings

Working with BCRP to develop a teen council program to adopt our nutrition curriculum

Partnering with Health Department on Baltmarket Healthy Stores Program

JHSPH will sustain social media and texting platforms



Overall Summary and Lessons Learned

- Multi-level engagement needed for MLMC interventions
 - To develop, initiate, sustain, scale up
- Ongoing process evaluation important to monitor implementation
 - Improvements from wave 1 to wave 2
- Importance of setting standards for implementation
- Achieving adequate exposure is critical in MLMC interventions, and for planning analyses

Future work in Baltimore

- Expand work with wholesalers, distributors and other aspects of the food supply (community farms, etc.)
- Provide city policymakers and agencies with evidence/recommendations needed to improve policy implementation

The United States Farm Bill

- An omnibus, multi-year piece of authorizing legislation that governs an array of agricultural and food programs:
 - Farm commodity price and income supports
 - Farm credit, trade, agricultural conservation, research, rural development, bioenergy, foreign food aid
 - Domestic nutrition assistance
- Renewed/revised every 5 years (last time: 2014)



What is SNAP?

- The Supplemental Nutrition Assistance **Program (SNAP)** is the largest nutrition assistance **program** administered by the USDA, serving more than 46 million low-income Americans per year, at a cost of more than \$75 billion.
- The goals of **SNAP** are to improve participants' food security and their access to a healthy diet.



Proposed New SNAP “Depth of Stock” Requirements

Change: SNAP authorized retail food stores must increase the number of items available on a continual basis from at least three varieties of items in each of four staple food categories, to a mandatory minimum of seven varieties

CURRENT SNAP CRITERIA

MEAT/POULTRY/FISH



BREAD/CEREAL



VEGETABLES/FRUITS



DAIRY



PROPOSED FUTURE SNAP CRITERIA

MEAT/POULTRY/FISH



BREAD/CEREAL



VEGETABLES/FRUITS



DAIRY



Problem Statement

- These changes have the potential to dramatically increase healthy food access in low income communities.
- Yet, little is known about the challenges and opportunities that small store owners will face in attempting to implement these new requirements.
- Inadequate attention to these issues could lead to small stores going out of business, leading to worsening food access and more food insecurity in low income communities

Research Aims

- To understand Baltimore store owners' perspectives on the new depth of stock requirements, and the challenges and opportunities they perceive.
- To recommend strategies to enhance the transition to the depth of stock requirements, and ensure full implementation in year 2.
- In-depth interviews with 20 corner store owners in Baltimore City (underway)

Findings

- No small store owners were aware of the proposed changes.
- Benefits
 - Will help the community
 - Catch SNAP fraud
- Concerns
 - Prices of staple foods at wholesalers are too high
 - Spoilage of high quantities of perishable items will end up costing owners too much



Suggested solutions

From store owners:

1. Have SNAP representative come to the store and teach store owners about the changes
2. Lower prices of staple foods at wholesalers
3. Reduce quantities required at all times (less than 6)

From other city agencies:

1. Partner with Baltimore Development Corporation to provide basic infrastructure to a large number of stores
2. Develop a comprehensive city-wide plan , focusing on fewer stores, but giving more support to convert into mini grocery stores

Future work in Baltimore

- Expand work with wholesalers, distributors and other aspects of the food supply (community farms, etc.)
- Provide city policymakers and agencies with evidence/recommendations needed to improve policy implementation
- Develop a healthy food delivery app: Baltimore Urban food Delivery (BUD)

Challenges

- Wholesalers don't like to deliver to small corner stores and carryouts in Baltimore
- Primary wholesalers often don't carry affordable, high quality produce
- Small food source owners don't perceive demand for healthy foods – not worth their effort to get it

Possible Solution: Baltimore Urban food Distribution (BUD) application

- Business to business “Uber for food delivery”



Lessons learned

- University-city agency partnership can be effective → takes years
- Baltimore is “ready” for change (progressive mayor, food policy director, city council, agencies) → interested in improving food environment
- University/research provides the evidence → trial programs (corner stores, carryouts, etc.) that can be adapted and/or simulations of policies under consideration/coming soon

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Thank you!

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