

NPI Brown Bag Seminar Series

Building on low-income consumer perspectives and practices to inform healthy retail interventions

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University of California
Agriculture and Natural Resources ■ Nutrition Policy Institute

Building on low-income consumer perspectives and practices to inform healthy retail interventions

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Research for healthy food, people and places

No conflicts of interest to disclose.



Outline

- 1 **Barriers low-income consumers face to healthful eating**
- 2 **Strategies low-income consumers use to combat those barriers**
- 3 **Evidence regarding healthy retail interventions**
- 4 **Conclusions**



Data Sources

Participant Voices

- Challenges
SNAP-Ed-eligible parents face in feeding their families
- 8 focus groups of a convenience sample of SNAP-Ed-eligible individuals (n=55) from 5 counties in California in 2017

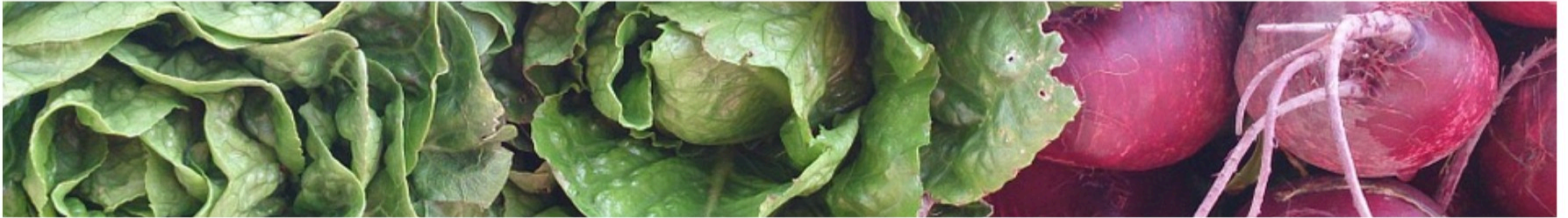
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- Food retail environment
- Sample of 231 supermarkets/large grocery stores, 621 small markets, and 622 convenience stores across 44 counties in California (2011-2015)
- Subset of 156 small markets and 143 convenience stores across 28 counties with data collected at a second time point (2016-2017)

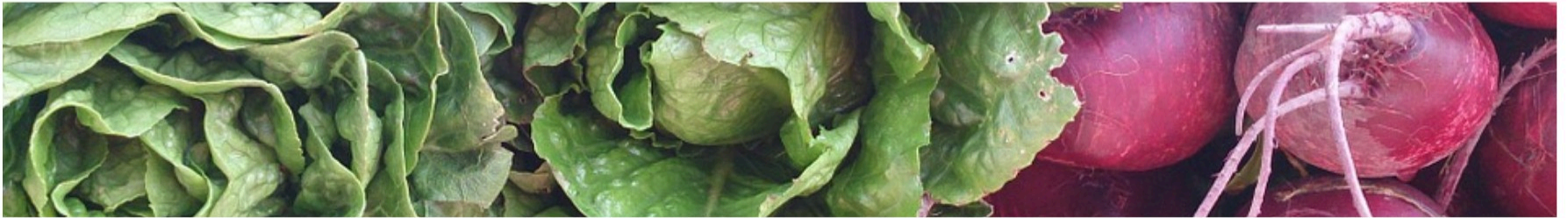
Literature Review

- Healthy retail interventions
- Pre/post measures plus control group
- Food purchases, dietary intake, and/or adiposity
- PubMed and agency repositories
- 82 papers published from 1978-2016

SNAP participants want to eat healthfully, but report that it is too expensive.



“...and I try to cook healthy for the utmost, but it's so expensive to cook healthy. So basically I cook what I have.”



“...but it’s so much more expensive if you want to get a good piece of fruit... I mean, this is California, a lot of them grow right here. We shouldn’t have that issue buying fresh delicious fruit. But if you can’t afford it, you do have issues.”

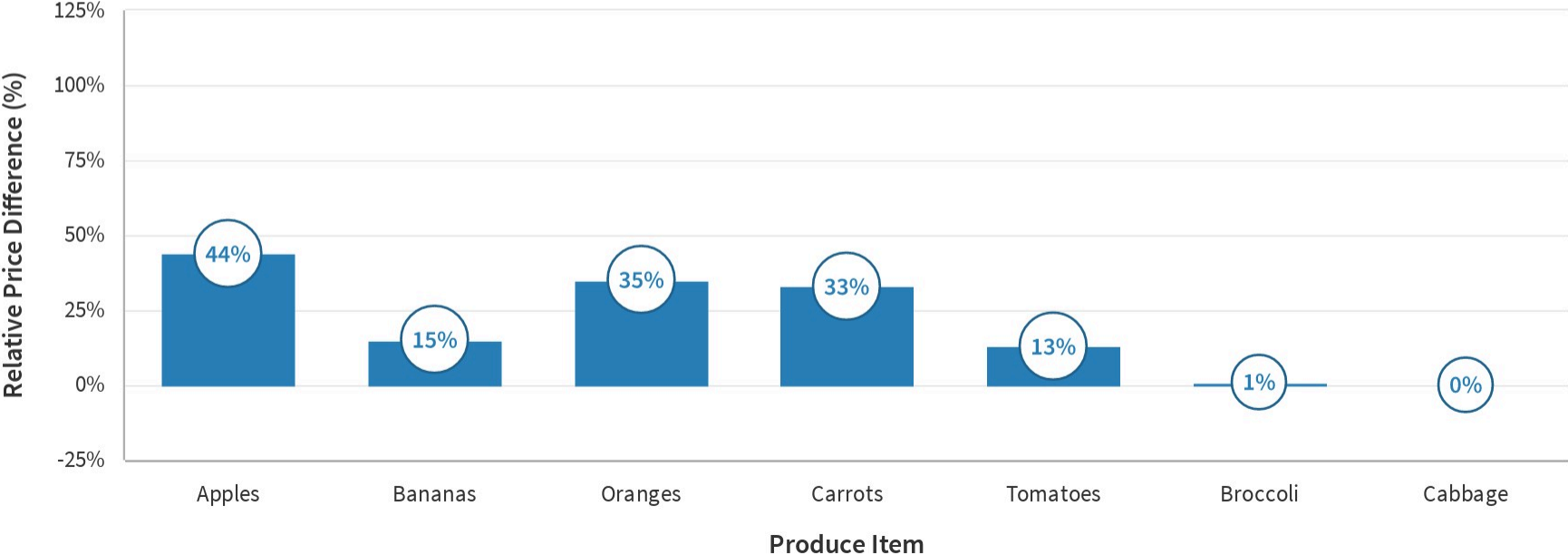


Relative Price Difference

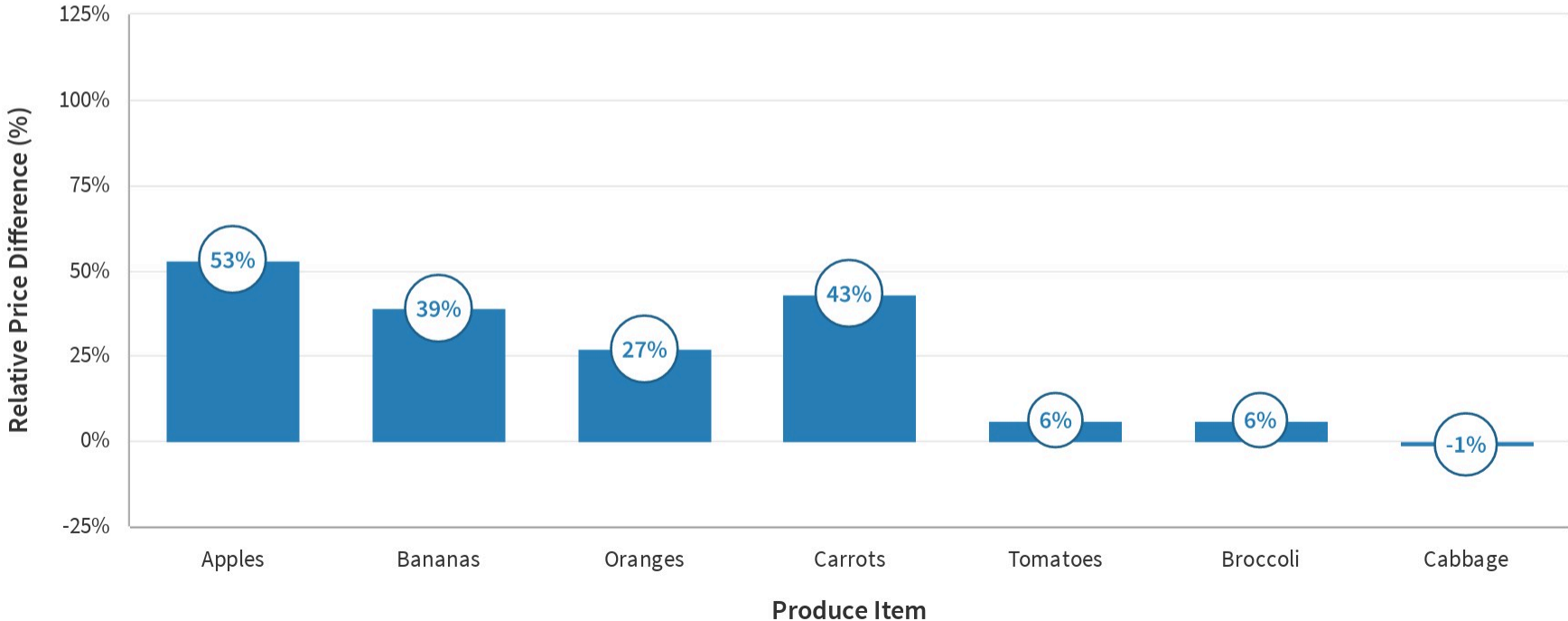
$$\frac{(\text{Average lowest price in stores in low income neighborhoods} - \text{County average lowest price in supermarkets})}{\text{County average lowest price in supermarkets}} * 100\%$$



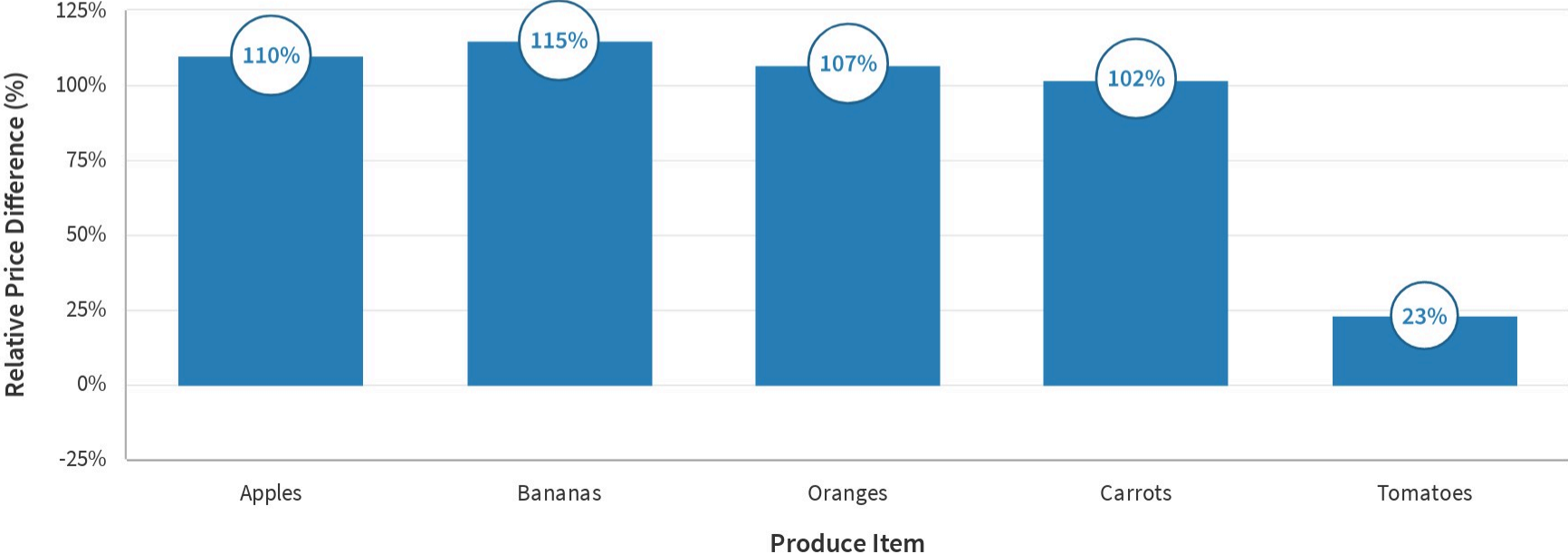
Produce prices are higher in large grocery stores in low-income neighborhoods vs county average supermarket prices



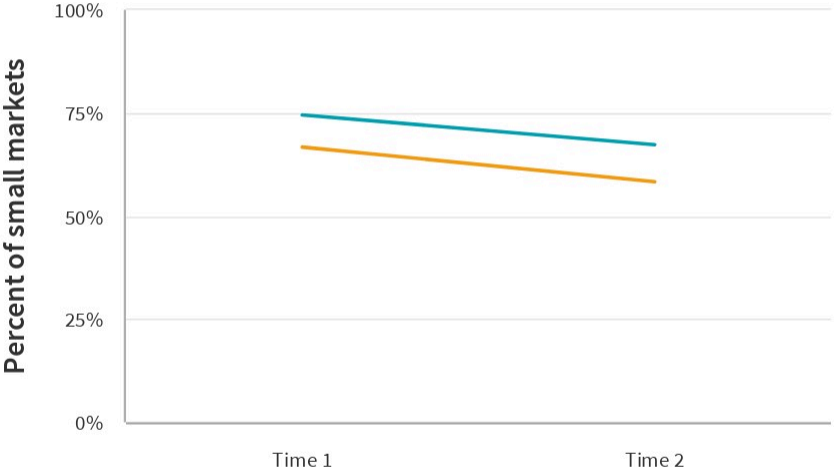
Produce prices are higher in small markets in low-income neighborhoods vs county average supermarket prices



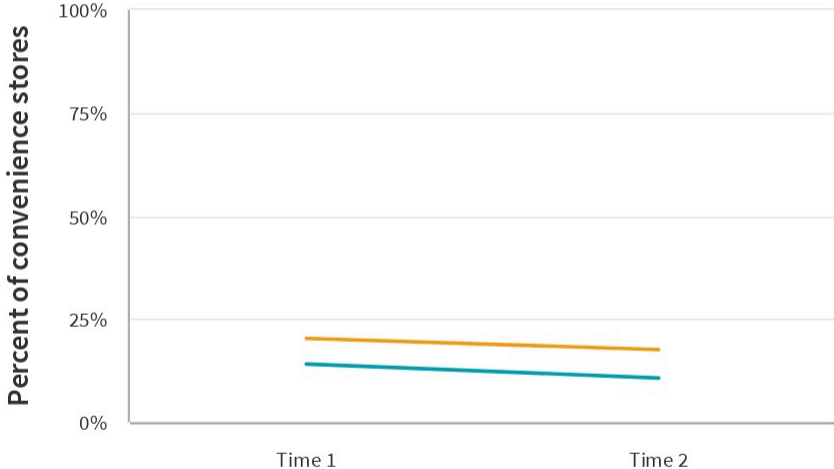
Produce price differences are greatest in convenience stores in low-income neighborhoods vs county average supermarket prices



Produce variety declined over time in small markets and convenience stores*



● >=4 types of fruit ● >=4 types of vegetables



● >=4 types of fruit ● >=4 types of vegetables

*Analyses adjusted for produce quality, store type, and SNAP/WIC participation.

Participants perceived their traditional cultural foods as being unhealthy and many felt that only fruits, vegetables, and unfamiliar foods were healthy.



**“Let’s look at breakfast, for example...
as Latinos, we are used to eating
beans, eggs... cheese and cream,
chilaquiles...tortillas. So, how do
we have balanced breakfasts?””**



Participants face both limited and poor quality grocery stores and cheap, convenient, highly promoted unhealthy options.



“There’s actually three grocery stores in that – within those shopping centers—but the quality of the produce is just bad, really bad. [Another participant responds] Right. Also, there’s like, with all of the fast food that’s around it, that overshadows the grocery store.”



Participants utilize various food acquisition strategies to stretch their dollars and food assistance benefits.



- 1 Buying staple and shelf-stable foods
- 2 Shopping at multiple stores to get the best deals
- 3 Buying foods on sale
- 4 Seeking food donations

“Because when I get my food stamps, I try to stock up. Stock up every meat, canned goods... vegetables I know go bad within a couple of days, so I try to buy just for that week and save, but even at the end of the month, I'm out. It's just not enough.”



Participants experience a great deal of stress and guilt from being unable to provide their children with the quantity and quality of food they feel they should.



“Like when you expect your kids to eat good, and they end up not eating good. You feel so bad that they – especially maybe you supposed to provide for them like three square meal a day, and you providing like two square meal a day. Maybe because... you couldn’t afford to buy the food. I mean, you don’t feel good about that. It makes you feel so uncomfortable.”



What can we do?

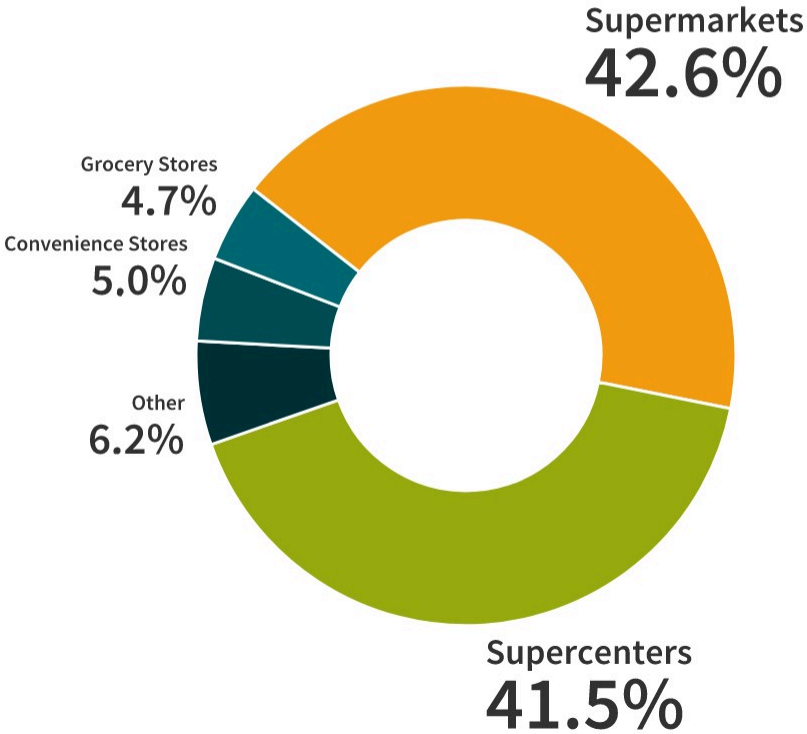


Shopping Patterns among Low-Income Populations



- Low-income consumers save money by buying cheaper, less healthy products than higher-income consumers in almost all retail venues.
- Low-income individuals travel to do most of their grocery shopping.

Shopping Patterns among Low-Income Populations





Price interventions are the most consistently effective.

- **Vouchers/Coupons +/- Nutrition Education**
- **Rebates**
- **Price Reductions**
- **Monetary Incentives + Store-Based Educational/Promotional Activities**
- **Taxes**



Other types of retail interventions are not consistently effective.

Healthy Food Access Interventions

- New supermarkets
- Free produce delivery

Store-Based Interventions

- Print materials +/- media campaign
- In-store audio-visual nutrition education +/- print materials
- Product placement
- Multicomponent



Conclusions

- 1 **Economically disadvantaged consumers face multiple barriers to healthy eating**
- 2 **Price interventions should be implemented wherever possible as they are effective for improving dietary intake.**
- 3 **Consider intervention reach when prioritizing efforts.**
- 4 **Additional research is needed to inform evidence-based retail shopping interventions.**
 - Limiting access to unhealthy foods in retail venues
 - Impact of in-store interventions on diet and weight-related outcomes
 - Understanding how to provide communities with access to affordable, high quality, appealing produce items in ways that support residents and businesses

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Thank you!

Participant Voices

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Isabel Rangel, MPH

Dania Orta-Aleman, MPH

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CX3

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A special thank you to the California Department of Public Health Nutrition Education and Obesity Prevention Branch, local health departments, and local agencies for their generous support of and contributions to this work.

Literature Review

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