

Outdoor Advertising for Foods and Beverages: What's Being Advertised and to Whom?

Christopher M Quinn, MS¹, Leah Rimkus, MPH, RD¹, Dianne C. Barker, MHS², Frank J Chaloupka, PhD¹

¹ Institute for Health Research and Policy, University of Illinois at Chicago

² Barker Bi-Coastal Health Consultants, Calabasas, CA

UIC INSTITUTE FOR HEALTH
UNIVERSITY OF ILLINOIS
AT CHICAGO RESEARCH AND POLICY

bridging the gap
Research Informing Policies & Practices
for Healthy Youth

Research Questions

- What types of food and beverage street advertisements are most prevalent in the US?
- Does food and beverage street ad content vary by community socio-demographic characteristics?

Methods

- Pooled cross-sectional study, data collected in 2011 & 2012 in 317 communities around the US representing where 8th, 10th, and 12th grade traditional public school students live
- Stratified PPS sample of street segments with supplemental convenience sample of commercial streets where retail food and physical activity establishments observed
- Direct field observation of sampled segments with coding of any relevant ads visible from each segment for 16 content areas, size (larger or smaller than standard billboard), & placement (e.g., free-standing, attached to a wall)
 - Ads were coded if visible from a sampled segment to measure exposure to advertising; an ad could be coded multiple times if visible from more than one sampled segment
- 26,987 eligible segments observed, of which 478 had one or more relevant food or beverage ads

What "Outdoor Advertising"?

- Conveys thematic content through words, pictures, or both
 - Visible from the road/sidewalk of the assigned street segment
 - Minimum of 8 ½ x 11 inches and commercial-grade (i.e., not hand-written sign)
 - Posted on paid commercial space
- Exclusions:** Ads posted in a storefront, in a retailer's window, or on a retailer's property; vending machines; ads on motor vehicles; ads for alcohol; and public art

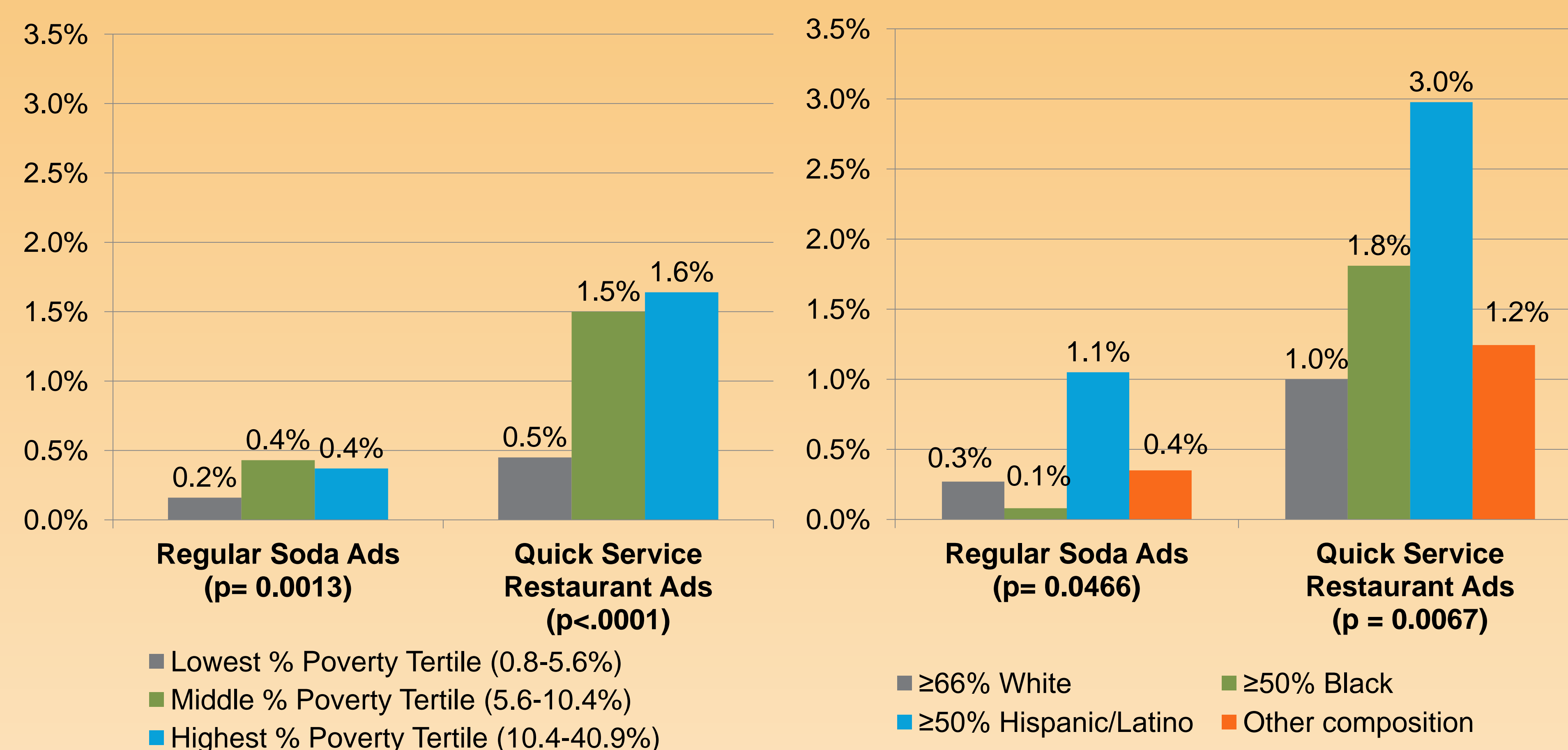
Preliminary Results

Overall Exposure to Food and Beverage Advertisements

Ad Type	% of Segments	95% CI
All food or beverage-related ads*	1.53%	1.28, 1.82
Regular soda	0.32%	0.24, 0.43
Regular soda w/ price promotion	0.11%	0.06, 0.20
Diet soda	0.04%	0.02, 0.08
Regular energy drink	0.02%	0.00, 0.06
Other non-alcoholic beverage	0.31%	0.24, 0.41
Quick-service restaurant	1.20%	0.99, 1.46
Quick-service restaurant w/ price promotion	0.30%	0.20, 0.44
Food store (w/ food or beverage)	0.17%	0.11, 0.28
Nutrition/healthy eating or weight-related message	0.13%	0.08, 0.22

*Ads for regular or diet soda, energy drink, other non-alcoholic drink, quick-service restaurant, food store, or nutrition/healthy eating/weight-related message.

Regular Soda and Quick Service Restaurant Ad Exposure by Percent of Families in Poverty (Tertiles) and Racial/Ethnic Composition



Conclusions

- Overall food and beverage street ad prevalence was low
- Quick-service restaurant (QSR) ads were the most prevalent and more frequently found in communities with a greater proportion of residents living in poverty, even after controlling for the presence of fast food outlets nearby and other factors
- In bivariate analyses, communities with 50% or more Hispanic or Latino population appeared to have more regular soda and QSR ads, but the differences were not significant when controlling for other segment- and community-level factors
- Street segments that are main arterial roads, and those with a transit stop or sidewalk were significantly more likely to have a visible QSR ad
- Greater fast food outlet density and number of intersections in the community were also associated with greater likelihood of a QSR ad
- In certain conditions, an increase in number of traffic lanes appeared associated with greater likelihood of a visible QSR ad, but not on arterial segments, or segments with sidewalks or in communities with the highest poverty levels., after adjusting for covariates

Results from Logistic Regression of Presence of Quick-Service Restaurant Ad

Variable	Odds Ratio	95% CI	p-value
<u>Families living below poverty level</u>			
Lowest tertile of % families in poverty (ref)	1.00		
Middle tertile % families in poverty	2.96	1.73, 5.05	0.000
Highest tertile % families in poverty	8.44	3.29, 21.62	0.000
Arterial segment	18.86	8.74, 40.69	0.000
Number of traffic lanes in segment	3.22	2.29, 4.54	0.000
Transit stop present	1.67	1.13, 2.48	0.000
Sidewalk present	2.32	1.16, 4.63	0.017
Fast food outlet density in catchment area	1.02	1.01, 1.03	0.005
Number of intersections in catchment area	1.00	1.00, 1.00	0.016
<u>Community Racial/Ethnic Composition</u>			
≥66% White (ref)	1.00		
≥50% Black	1.02	0.56, 1.85	0.951
≥50% Hispanic/Latino	1.41	0.62, 3.22	0.411
Other composition	0.70	0.47, 1.03	0.070
Year 2012	1.18	0.80, 1.73	0.401
<u>Interactions</u>			
Highest tertile % poverty * Lanes	0.72	0.57, 0.90	0.005
Arterial segment * Lanes	0.63	0.49, 0.82	0.001
Sidewalk * Lanes	0.71	0.58, 0.87	0.001

Arterial segments are high-capacity streets and main thoroughfares. Number of traffic lanes excludes turn-only and bus lanes. Transit stop includes light rail, trolley, or bus stop. Fast food outlet density is measured as the number of known fast food outlets per square mile of catchment area. CI: Confidence interval.



Funding from the Robert Wood Johnson Foundation for the Bridging the Gap Program.

Find out more at bridgingthegapresearch.org

Email: cquinn5@uic.edu