



Evaluation of the 2013 Champions for Change Media Campaign

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EXECUTIVE SUMMARY

Introduction

The California Department of Public Health, Nutrition Education and Obesity Prevention Branch, 2013 Champions for Change Media Campaign (Campaign) consisted of TV, radio, billboard, website, and transit TV ads intended to promote healthful eating and physical activity. The Campaign was designed to support and reinforce local interventions aimed at individuals living in households at or below the 185% Federal Poverty Level – the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program (SNAP) low-income standard for program services.

The Campaign ran over a 27-week period, ending on September 29, 2013, with three types of campaigns: *Legacy of Health* (African American focused), *Not My Kids* (Latino focused), and *CalFresh*.

Legacy of Health (one TV, two radio, & two billboard ads): These ads communicated that building legacies and passing down traditions has always been important to African American families, especially when it comes to food. The ads emphasized healthy traditions with resources such as healthy recipes and tips on healthier eating, and ways to keep family members active.

Not My Kids (two TV, three radio, & four billboard ads): These ads were designed to encourage Latino families to protect their children from chronic diseases such as type-2 diabetes that can result from childhood obesity. The TV ads depicted multigenerational families at home, walking and riding bikes with their children, preparing food in kitchens, and shopping for fruits and vegetables. All *Not My Kids* ads included Spanish-language versions: *A Mis Hijos No*

CalFresh (two TV & two billboard ads, English- and Spanish-language): These ads communicated that the once-titled California Food Stamp Program is now called CalFresh, and that the program can be used to purchase healthy foods. The TV ad depicted fruits and vegetables with images of the CalFresh card. It also included plates of food with half the plates with fruits and vegetables.

All ads included a website address; all radio and billboard *Legacy of Health* and *Not My Kids* ads also included a phone number to obtain additional information.

Campaign Scope and Number of Impressions

A total of 27,027 thirty-second TV ads and 26,135 sixty-second radio ads aired during the Campaign; 15,937 billboard ads (4,948 large and 10,989 small) were displayed in low-income census tracts during the 27-week period. Campaign impressions, or members of the target population exposed to a TV, radio, or billboard ad at least once, was 1,676,197.

Evaluation Design and Assessing Campaign Exposure

Member of the target population were randomly sampled and recruited for two telephone interviews, three months apart, after the Campaign ended. A total of 1,143 mothers participated in the initial interviews and 596 were re-interviewed three months later.

Exposure to campaign messages was assessed by comparing open-ended responses to standardized survey items that asked women about ads that they saw or heard with a list of the images, messages, and spoken words appearing in the Campaign ads. These procedures resulted in coding 15.9% of the sample as “definitely saw or heard” a Campaign ad.

Analyses

Repeated measures analyses were conducted to investigate changes over time in self-reported behaviors between survey respondents who “definitely saw or heard” a Campaign ad versus those who did not. The analyses controlled for levels of education, participation in WIC during the previous 12 months, and race/ethnicity.

Findings

Campaign exposure was not related to changes in fruit and vegetable consumption, when examining intake of fruit, salad, carrots, and other vegetables separately or in combination; or in terms of meeting the recommended level for daily consumption. In addition, eating at least half a plate of fruits and vegetables was also not related to recall of Campaign messages. The three measures of physical activity examined in this study, including participating in at least 150 minutes of physical activity per week, were also not related to Campaign exposure.

Discussion

Self-reported behaviors did not differ by levels of exposure to Campaign messages across the 13 outcome variables assessed in this study. It is feasible that Campaign messages did change behaviors over those that mothers from the California SNAP population engaged in prior to the initiation of the Campaign in April 2013, but the design of this study did not allow for detecting such changes. Our findings only allow us to conclude that potential positive behavioral changes resulting from the Campaign did not continue from a period of time of approximately one month after the Campaign ended until three months later.

Introduction

The California Department of Public Health (CDPH), Nutrition Education and Obesity Prevention Branch (NEOPB), provides grant funding to local health departments (LHDs) to implement individual- and community-focused interventions that promote healthful eating and physical activity. The relationship between the State and LHDs is one where the NEOPB provides training, support, and guidance to LHDs on evidence-based, practiced-based, or promising interventions as well as structured survey instruments and tools, procedures, and reporting systems to evaluate the interventions. LHDs, in turn, have the autonomy to determine if they (e.g., county public health staff) or other organizations such as non-profits within their jurisdiction are most qualified to implement interventions, and to tailor intervention messages and approaches based on population characteristics, community priorities, and other factors.

Thus, the majority of NEOPB-funded intervention activities across California occurs and is driven at the local level. The exception is the annual Champions for Change Media Campaign (Campaign) consisting of TV, radio, billboard ads, and to a lesser extent website and transit TV ads (i.e., ads displayed on monitors within public buses). Messages in the 2013 Campaign ads were intended to support and reinforce local interventions aimed at individuals living in households at or below the 185% Federal Poverty Level (FPL) – the United States Department of Agriculture (USDA) Supplemental Nutrition Assistance Program (SNAP) low-income standard for program services. Launched on April 8, 2013, coinciding with CDPH's Public Health Week, the Campaign ran over a 27-week period, ending on September 29, 2013.

This report summarizes the primary messages of the Campaign, the estimated number of impressions, and the findings from interviews with women from SNAP-Ed households to investigate correlations between levels of Campaign exposure and behavior changes over a three-month period. Specifically, women were interviewed soon after the Campaign ended, and then again three months later, and asked questions about fruit and vegetable consumption and other behaviors that the Campaign ads were designed to influence.

THE CAMPAIGN

Development of Campaign Messages

The Campaign included three types of messages selected from focus group testing. Initially, ten concepts were developed by Runyon Saltzman and Einhorn, Inc. (RS&E) and presented to focus group participants in San Francisco, Fresno, and Los Angeles. Three concepts were developed for African American audiences, three concepts for Latino audience and four concepts for the multicultural audience. The focus group procedures included presenting hand-drawn images of potential TV, billboard, and website ads, with the moderator facilitating a discussion about the intended purpose of the ads and eliciting participants' general impressions about each ad. Focus group participants responded most favorably to the images and messages of the concepts called Legacy of Health (African American focused), Not My Kids (Latino focused) and CalFresh, a multicultural ad promoting the CalFresh Program as a means of obtaining healthy foods.

Final Ads by Type of Medium and Message

The *Legacy of Health* messages were communicated through one TV ad, two radio ads, and two billboard ads. The *Not My Kids* messages appeared in two TV ads, three radio ads, and four billboard ads. All *Not My Kids* ads included Spanish-language versions: *A Mis Hijos No*. Finally, two *CalFresh* TV and billboard ads (English- and Spanish-language versions) were included in the 2013 Campaign. Every ad included a website address; all radio and billboard *Legacy of Health* and *Not My Kids* ads also included a phone number to obtain additional information.

The visual images, spoken words, and text of these ads are presented below.

Legacy of Health

These ads communicated that building legacies and passing down traditions has always been important to African American families, especially when it comes to food. The ads emphasized that the Network for a Healthy California¹ has tools to help families make new, healthy traditions with resources such as healthy recipes and tips on healthier eating, and ways to keep family members active. The TV ads depicted African American families in neighborhood settings and cooking meals together, as well as presented images of children skipping to a neighbor's house and jumping rope, and families riding bikes.

Billboard #1



Billboard #2



TV Script: *New traditions aren't always passed from generation to generation. Sometimes they're passed from neighbor to neighbor, and daughter to mom. And with the right tools and information, we can make sure those traditions last, moving them away from obesity, high blood pressure and type 2 diabetes and toward more physical activity and better health. Visit LegacyOfHealth.net for healthy recipes and tips on how to keep your family active. To help you become a champion for change.*

Radio Script #1: *Passing down traditions has always been important to African-American families, especially when it comes to the tradition of food. But for too long, many of those traditions of rich foods have also led to a legacy of health problems, which have become too big to ignore. Obesity, high blood pressure, and type-2 diabetes are far too common and represent a legacy in need of serious change. The Network for a Healthy California has resources to help make that change with tips on healthier eating, ways to keep your family active and healthy recipes to help you start a new, positive tradition for you and your family both now and for years to come. Call 1-888-328-3483 or visit LegacyOfHealth.net to start your new tradition today. That's 1-888-328-3483 or legacyofhealth.net. A message from the California Department of Public Health. Funded by USDA SNAP-Ed. Equal opportunity providers and employers.*

¹All the USDA SNAP-funded NEOPB intervention activities, including the Champions for Change Media Campaign, were collectively known as the Network for a Healthy California in 2013.

Radio Script #2: We all want to leave our kids with something more than what we had, a legacy they can be proud of, giving them the tools they need to be happy and successful. But when it comes to health, what legacy will you leave? Will it be one of obesity, high blood pressure and type-2 diabetes, all of which are far too common within our community? Or will it be a legacy of good eating habits, active living and the knowledge and resources to help ensure a healthier future? At the Network for a Healthy California we're here to help provide those resources with easy access to tips on how to eat better, information on staying active and healthy recipes to help you leave a legacy you can be proud of. Call 1-888-328-3483 or visit LegacyOfHealth.net to shape your new legacy today. That's 1-888-328-3483 or LegacyOfHealth.net. A Message from the California Department of Public Health. Funded by USDA SNAP-Ed. Equal opportunity providers and employers.

Not My Kids (A Mis Hijos No)

These ads were designed to encourage Latino families to protect their children from chronic diseases such as type-2 diabetes that can result from childhood obesity. The TV ads depicted multigenerational families at home, walking and riding bikes with their children, preparing food in kitchens, and shopping for fruits and vegetables.

Billboard #1



Billboard #2



Billboard #3



Billboard #4



“Walk together for a healthier future”

“Teach them to choose healthy foods”

English-language TV Script: Mom: I didn't know... Mom 2: my parents didn't know... Mom 3: that childhood obesity can lead to type-2 diabetes. Mom 4: But now that I know I won't let it happen to my kids. Mom 2: I'm making important changes so my kids can have the chance... Mom 3: to live a long and healthy life. Visit NotMyKids.net to get healthy recipes, ideas to keep your family active, and many more tips. Visit NotMyKids.net today. Do it for your kids' health.

Spanish-language TV Script (translated): MOM 1: I didn't know... MOM 2: My parents didn't know... MOM 3: That childhood obesity can lead to type 2 diabetes. MOM 4: I was diagnosed with that disease... MOM 1: And my life has changed completely. MOM 2: The last thing I want... MOM 3: Is for that to happen to my kids too. MOM 4: That's why now I cook in a healthier way...

MOM 1: *And we do physical activity as a family. Announcer (ANNCR): These moms are protecting their children from childhood obesity and type 2 diabetes. You can do it too. Visit AMisHijosNo.net or call 1-888-328-3483 to get healthy recipes, and tips. MOM 2: I want my kids to live a long and healthy life... Visit AMisHijosNo.net or call 1-888-328-3483 today. Do it for your kids' health. Message from the California Department of Public Health. Funded by USDA SNAP-Ed. Equal opportunity providers and employers.*

English-language Radio Script #1: MOM 1: *I didn't know...* MOM 2: *My parents didn't know...* MOM 3: *That childhood obesity can lead to type 2 diabetes.* MOM 4: *I was diagnosed with that disease...* MOM 1: *And my life has changed completely.* MOM 2: *So the last thing I want...* MOM 3: *Is for my kids to go through the same thing.* MOM 4: *That's why now I cook in a healthier way...* MOM 1: *And we are more physically active as a family. ANNCR: These moms are protecting their kids from childhood obesity and type 2 diabetes. And you can too. Visit NotMyKids.net or call 1-888-328-3483 to get healthy recipes, ideas to keep your family active and many more tips. MOM 2: I just want my kids to have a chance...* MOM 3: *To live a long and healthy life. Visit NotMyKids.net or call 1-888-328-3483 today. Do it for your kids' health. A message from the California Department of Public Health. Funded by USDA SNAP-Ed. Equal opportunity providers and employers.*

English-language Radio Script #2: DAD: *When I was a kid, I was a little on the chubby side, and my family thought it was so cute. But they didn't know that childhood obesity can lead to type-2 diabetes. Now, my doctor told me I have type-2 diabetes... and there's nothing cute about that. MOM: When my husband told me, I got so worried... for him, and for our kids too. What if the same thing happens to them? DAD: I knew it was time to make some important changes. So, now we go running with the kids, or we play soccer instead of sitting in front of the TV. MOM: And we cook our dishes in a healthier way. These parents are protecting their kids from childhood obesity and type-2 diabetes, and you can too. Visit NotMyKids.net or call 1-888-328-3483 to get healthy recipes, ideas to keep your family active and many more tips. Do it for your kids' health. A message from the California Department of Public Health. Funded by USDA SNAP-Ed. Equal opportunity providers and employers.*

Spanish-language Radio Script (translated): DAD: *As a kid, I was a little on the chubby side. And my family thought it was so cute. But they didn't know that childhood obesity can lead to type 2 diabetes. Now, my doctor told me I have type 2 diabetes... and that's really serious. MOM: When my husband told me, I got really worried... for him, and for our children. What if the same thing happens to them? DAD: Now we go running with the kids, or we play some soccer instead of sitting in front of the TV. MOM: And we cook our dishes in a healthier way. These parents are protecting their kids from childhood obesity and type-2 diabetes. You can do it too. Learn how at AMisHijosNo.net or call 1-888-328-3483 to get healthy recipes and tips. Do it for your kids' health. Message from the California Department of Public Health. Funded by USDA SNAP-Ed. Equal opportunity providers and employers.*

CalFresh

The *CalFresh* TV ads communicated that the once-titled California Food Stamp Program is now called CalFresh, and that the program can be used to purchase healthy foods. The TV ad depicted fruits and vegetables with images of the CalFresh card. It also included plates of food with half the plates with fruits and vegetables.

TV Script (English- and Spanish-language): *If you want a healthy meal, freshen up your plate with CalFresh. CalFresh is the new name for California's Food Stamp Program. CalFresh can help you purchase healthy foods for your family, to help make half your plate fruits and vegetables. That's the start of good nutrition. CalFresh can help you get there. To learn more and apply for CalFresh today, visit CalFresh.ca.gov and enjoy better food for better living.*

Billboard #1



Billboard #2



Campaign Scope and Impressions

A total of 27,027 thirty-second TV ads and 26,135 sixty-second radio ads aired during the Campaign; 15,937 billboard ads (4,948 large and 10,989 small) were displayed in low-income census tracts during the 27-week period.

RS&E facilitated the placement and purchase of all ads. Before the initiation of the Campaign, they were required to demonstrate that they had selected an appropriate mix of media (TV, radio, etc.) that when combined would reach 50% of individuals at or below 185% of the FPL. Campaign ads were displayed throughout California except for the media markets in Del Norte, Siskiyou, Lassen, Alpine, and Mono Counties.

Campaign impressions, or the number of individuals exposed to an ad at least once, was reported by RS&E to be 2,056,014. Eighty-five percent of this estimate, or 1,747,612 impressions, represent the number of individuals in California thought to be at or below the 185% FPL in the selected media markets. As discussed below, the evaluation of the 2013 Campaign focused only on TV, radio, and billboard ads. The overall impressions for these media were 1,971,997, with impressions among members of the target population estimated to be 1,676,197. It is important to note that the calculations for impressions are based on imprecise estimates, third party sources (billboard vendors), and samples of viewers (A.C. Nielsen ratings) and listeners (Arbitron ratings).

THE EVALUATION

Member of the target population were recruited for two telephone interviews, three months apart. Random sampling was used with stratification by race/ethnicity (Whites, Latinas, and African Americans). Assessing exposure to the Campaign focused on survey participants' recall of TV, radio, and billboard ads. The evaluation study received Institutional Review Board (IRB) approval.

Target Population and Sampling

The target population was mothers 18 to 54 years of age from the Medi-Cal Eligibility Data System (MEDS database). The sampling frame represented individuals from households participating in the SNAP in California as of August 27, 2013. Within each stratum, a sample of 28,638 telephone lines was selected with the goal of completing 334 interviews within each of the three racial/ethnic groups.

Data Collection

Wave I interviews were conducted from November 4 to December 6, 2013; Wave II interviews ran from March 6 to April 6, 2014. The telephone interviews were conducted in English and Spanish by trained staff at NORC at the University of Chicago. Survey participants were mailed \$10 in appreciation of their time.

A total of 1,141 women were interviewed soon after the Campaign ended, for an overall response rate of 26.9% (Table 1). Cooperation and response rates were highest for whites, followed by African Americans then Latinas. Three months later, 596 Wave II interviews were completed, for a retention rate of 52.2%. Follow-up interviews were least successful for African American and most successful for white Wave 1 survey participants.

Table 1. Number of completed interviews, and cooperation, response, and retention rates, by survey wave, racial/ethnic strata, and overall

	White	African American	Latina	Total
<u>Wave I</u>				
Number of Completed Interviews	456	386	299	1,141
Cooperation Rate	71.6%	70.2%	60.7%	68.0%
Response Rate	31.5%	27.6%	21.3%	26.9%
<u>Wave II</u>				
Number of Completed Interviews	242	197	157	596
Retention Rate	53.1%	51.0%	52.5%	52.2%

Outcome Variables

The survey instrument was designed to assess a number of outcomes, but 11 items in particular were identified as pertinent to the messages appearing in the 2013 Campaign.

Three questions assessed the potential of the Campaign to change the home environment to one more conducive of healthful eating and physical activity. Specifically, survey participants

were asked, “How often do you make it easy for (any of/your) child(ren) living in your home to eat fruit and vegetables, such as by having them washed, cut and ready to eat?;” “How often do you make it easy for (any of/your) child(ren) living in your home to be physically active, such as by taking them to sports practice, playing ball with them, or encouraging them to play outside or ride a bike?;” and “How often do you or your children do a physical activity together, such as playing ball, riding bikes, or taking a walk?” Responses to the three questions were coded into the categories of “every day” versus all other answers.

Five items assessed the frequency of healthful eating behaviors. Four separate items asked mothers to estimate how often they eat fruit, green salad, carrots, and other vegetables. Mothers were allowed to respond in times per day, week, month, or year time frame. All responses were subsequently coded to the “times per day” unit. Analyses were conducted for each item separately, and as a composite variable. A dichotomous variable was also based on meeting the recommendation for fruit and vegetable consumption per day. A final eating behavior item was presented to participants as: “When you think about your plate at mealtimes, how much of your plate is usually filled with fruit and vegetables?” The USDA recommended standard of half a plate was used to code responses into less than half a plate versus half a plate or more.

Three items were designed to assess changes in levels of physical activity three months after the end of the Campaign. The first question asked, during a “usual week,” are there any days where you are physically active for at least 10 minutes. Those responding “yes” to this question were asked for how many days per week are they physically active for 10 minutes, and then how much time (hours or minutes) per day do they participate in physical activities. Number of days and how much time for physical activity were multiplied, and converted to a dichotomous variable representing meeting the recommendation of weekly physical activity of 150 minutes.

Assessing Exposure to Campaign Messages

Exposure to campaign messages was assessed by comparing open-ended responses to standardized survey items asking women about ads that they saw or heard with a list of images, messages, and spoken words appearing in the Campaign ads. Research staff independently coded the open-ended responses into six categories, which were subsequently collapsed into two categories: “Definitely Saw or Heard” versus “other” for the TV, radio, and billboard ads. A fourth exposure variable was created to represent “Definitely Saw or Heard” any Campaign ads versus all others responses. The details of the coding processes are presented below.

During Wave I interviews, survey participants were presented with the following statement:

I would like to ask you some questions about ads you may have seen or heard. In the last three months, including July, August and September, have you seen any ads on TV recommending that people eat fruit and vegetables or be physically active for better health? I don’t mean ads for specific restaurants, grocery stores, or health clubs.

Those responding “yes” to this question were then asked to answer the following open-ended questions: “Please describe what you remember about the TV ad.” Interviewers were trained to record respondents’ answers verbatim. The questionnaire also included the following probes: “What was the main message of the ad?;” “What do you remember about the story?;” and “What do you remember about the characters?”

The same series of questions was repeated for radio and billboard ads.

The coding of the open-ended responses was conducted in the following way: First, NEOPB research staff comprehensively reviewed each ad and related script to develop a list of the verbal (key words, phrases) and visual elements from the ads. Second, an instruction manual was developed that outlined the procedures and rules for coding. Third, three staff independently compared open-ended responses with the reference list so that responses from each Wave I survey participants were independently coded by two staff into six categories (Table 2).

Table 2. Initial codes and related criterion for coding open-ended Campaign exposure responses

Code	Criterion
1. Definitely saw or heard ad	Provided accurate details of ad as related to words or phrases (<i>“Better Food for Better Living,” “Preventing family from diabetes and obesity,” “Champions for Change,” “Not My Kid”</i>); TV characters <u>and</u> settings/activities (<i>“African American mother and daughter shopping for produce at the grocery store”</i>) and/or billboard pictures or images (<i>“Father playing soccer with his kids,” “Mother gardening with son”</i>)
2. Maybe saw or heard ad	Provided some details similar to ad words or phrases and/or characters <u>or</u> settings/activities. (<i>“A woman making a meal with vegetables,” “An African-American child eating fruit”</i>)
3. Possibly saw or heard ad	Provided vague descriptions of words or phrases and/or characters <u>or</u> settings/activities similar to ads (<i>“Eat Healthy,” “Be Active,” “A group of adults playing sports”</i>)
4. Probably did not see or hear ad	Provided details or description of non-Campaign ads (<i>“Thrive,” “Let’s Move,” “Choose My Plate,” “WIC ad”</i>)
5. Did not see ad	Responses such as <i>“Do not recall”</i> or <i>“Don’t remember”</i>
6. Saw or heard a previous year’s NEOPB ad	Provided details or description of previous year Campaign messages (<i>“Five a day,” “What’s harder,” “My shopping cart, my rules”</i>)

The following codes were subsequently collapsed into dichotomous categories (Code 1 versus Codes 2 through 6). Inter-coder reliability was assessed by calculating Cohen’s Kappa (k) statistic. The k value for TV was .72, radio was .88, and for Billboards was .91. The value of .70 or above is considered satisfactory.²

² Landis RJ, Koch GG. The measurement of observer agreement for categorical data. *Biometrics*. 2007; 33: 159-174

Analyses to Assess Campaign Exposure in Relation to Self-Report Behavioral Changes

An initial dataset from the survey contractor of only the open-ended responses was used to code levels of Campaign exposure. A subsequent database surprisingly included an additional 21 Wave I survey participants.

GLM repeated measures analyses were conducted on the 1,120 survey participants using Wave 1 and Wave 2 data with each outcome variable as the within-subject factor and the dichotomous exposure variable (“definitely saw or heard” a Campaign ad versus other) as the between-subject factor. These analyses tested whether changes over time (Wave I to Wave II) significantly differed for those mothers exposed to Campaign messages compared with those not coded as exposed to Campaign ads.

The analyses controlled for level of education (up to high school education versus some college or higher) and participation in WIC during the previous 12 months. An initial series of analyses included Latino versus all other racial/ethnic groups as a covariate. A second series of analyses replaced the Latino variable with one distinguishing African Americans from other race/ethnicities. In cases where race/ethnicity was significant, subsequent analyses were conducted within the racial/ethnicity group by level of Campaign exposure.

RESULTS

We determine that 15.9% of SNAP mothers “definitely saw or heard” a Campaign TV, radio, and/or billboard ad.

The percent of mothers reporting that they encouraged their children to eat fruits and vegetables and be physically active decreased over the three-month survey period ($p < 0.001$). Decreases by levels of Campaign exposure were not found to differ for the complete sample. However, among Latinas, Campaign exposure was related to a rate of decrease (27.8%) that significantly different from the decrease among those not exposed to Campaign messages (45.2%; Table 3). Changes in the percent of mothers who were physically active with their children everyday also decreased from the end of 2013 (Wave I) to March/April 2014 (Wave II), but did not differ by levels of Campaign exposure.

Campaign exposure was not related to increases in fruit and vegetable consumption, whether examined individually; using a variable that combined fruit, salad, carrots, and other vegetables; or in terms of meeting the recommended level for daily consumption (Table 4). Self-reports of adopting the images of the CalFresh ads – eating at least half a plate of fruits and vegetables – significantly decreased over time ($p < 0.001$) and were not related to recall of Campaign messages.

The percent of respondent claiming to be physically active for at least 10 minutes a day increased about five points over the three-month period, however increases were not related to Campaign exposure (Table 5). Campaign exposure was also not associated with changes over time for physically active days and engaging in at least 150 minutes of physical activity per week.

Table 3. Comparisons of promoting healthy behaviors by mothers not exposed and exposed to messages from the 2013 Champions for Change Media Campaign

	Campaign Exposure	Wave I Survey	Wave II Survey	Difference	P Value
Percent of mothers who everyday make it easy for children to eat fruits and vegetables	No	76.8	38.1	-38.7	0.11
	Yes	75.2	44.0	-31.2	
<u>Among Latinas ...</u>					
Percent of mothers who everyday make it easy for children to eat fruits and vegetables	No	78.4	33.2	-45.2	0.02
	Yes	76.5	48.7	-27.8	
Percent of mothers who everyday make it easy for children to be physically active	No	76.3	39.0	-37.3	0.12
	Yes	71.5	41.9	-29.6	
Percent of mothers who everyday are physically active with their children	No	40.2	19.9	-20.3	0.53
	Yes	40.8	23.4	-17.4	

Note: p values are for comparisons of changes over time by Campaign exposure.

Table 4. Comparisons of eating behaviors by mothers not exposed and exposed to messages from the 2013 Champions for Change Media Campaign

	Campaign Exposure	Wave I Survey	Wave II Survey	Difference	P Value
Number of time per day ... eat fruit	No	1.58	1.54	-0.04	0.35
	Yes	1.78	1.59	-0.19	
eat salad	No	.66	.65	+0.01	0.88
	Yes	.79	.79	+0.00	
eat carrots	No	.45	.41	-0.04	0.32
	Yes	.48	.52	+0.04	
eat other vegetables	No	1.23	1.16	-0.07	0.92
	Yes	1.31	1.25	-0.06	
drink fruit juice; eat fruit, salad, carrots, potatoes, or other vegetables	No	4.91	4.72	-0.19	0.75
	Yes	5.84	5.77	-0.07	
Percent meeting recommendation for daily fruit and vegetable consumption	No	49.9	51.6	+1.7	0.74
	Yes	44.6	48.5	+3.9	
Percent eating at least half a plate of fruits and vegetables	No	48.9	26.3	-22.6	0.55
	Yes	47.0	27.3	-19.7	

Note: p values are for comparisons of changes over time by Campaign exposure.

Table 5. Comparisons of physical activity by mothers not exposed and exposed to messages from the 2013 Champions for Change Media Campaign

	Campaign Exposure	Wave I Survey	Wave II Survey	Difference	P Value
Percent physically active for at least 10 minutes a day during usual week	No	85.4	90.2	+4.8	0.91
	Yes	88.1	92.5	+4.4	
Number of days per week physically active	No	4.48	4.66	+0.18	0.97
	Yes	4.73	4.92	+0.19	
Percent meeting recommendation for physically activity per week (150 minutes)	No	65.4	66.3	+0.9	0.24
	Yes	66.7	74.2	+7.5	

Note: p values are for comparisons of changes over time by Campaign exposure.

DISCUSSION

This evaluation study found, among a random sample of SNAP mothers, that the behaviors promoted in the 2013 Campaign TV, radio, and billboard ads remained stable or, in some cases, significantly declined over the three-month study period. Moreover, our findings did not differ by levels of exposure to Campaign messages across the 13 outcome variables presented in Tables 3 through 5. One positive result was that the rate of decrease over time in making it easy for children to eat fruits and vegetables was less among Latinas exposed to the Campaign compared with Latinas not exposed to the ads. This may be explained by the fact that the Latino-focused *Not My Kids* ads more explicitly conveyed the message of the importance of preparing fruits and vegetables for your children's health than did the other ads.

A challenge in this study was determining whether or not a respondent had actually been exposed to a Campaign ad. This was accomplished by systematically comparing the scripts and images from the Campaign ads with answers to open-ended questions asking about "ads you may have seen or heard in the last three months." However, even if an individual had seen a Campaign ad, she may not have been sufficiently articulate to convey the specific words, phrases, or visual elements required to be coded as "definitely saw or heard" an ad. Consequently, a number of responses may have fallen into the grey area of "maybe" or "possibly" saw or heard an ad, and those respondents were not included in the positively exposed group, thereby diminishing the sensitivity of our primary independent variable. Alternatively, a respondent could have been exposed to and influenced by a Campaign message, but not during the three-month recall period used to assess exposure. They too would have been misclassified per the manner in which exposure was operationalized for this study.

This study also suffered from low response and retention rates. We also did not assess exposure to the Campaign ads appearing in transit TV or websites promoted in the ads. Most importantly, our findings should be interpreted in light of the limitation of the study design – the three-month period used to assess potential behavioral changes occurred after the Campaign ended in September 2014. It is feasible that Campaign messages did change behaviors over those that mothers from the California SNAP population engaged in prior to the initiation of the Campaign in April 2013, but the design of this study did not allow for detecting such changes. Our findings only allow us to conclude that potential positive behavioral changes resulting from the Campaign did not continue from a period of time of approximately one month after the Campaign ended until three months later. It is possible that the Campaign did increase these types of behaviors initially, and our findings demonstrate the inability of the Campaign to elicit longer-term changes.

The shortcomings of the evaluation design will be addressed in FFY 2015 when Wave I interviews with SNAP mothers are scheduled to occur before the start of the Campaign, with follow-up Wave II interviews taking place three months into the Campaign. This approach will do a much better job at detecting relationships between Campaign exposure and behavior change, at least in the short term, for a few reasons, including that the recall period will coincide with the first three months of the Campaign. FFY 2015 will also provide the opportunity to possibly improve the wording of the questions about Campaign exposure and associated probes to obtain more valid responses.



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