

Results from Alaska's Play Every Day's Sugary Drinks Public Education Campaign 2014-2017

Changes in Knowledge, Attitudes, and Behaviors about Physical Activity and Sugary Drinks Following Alaska's Play Every Day Media Campaign

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Executive Summary

This report presents findings from five surveys conducted in June 2014, December 2014, February 2015, April 2015, and November 2015 on recall and reaction to the PSAs, and on knowledge, attitudes, and behaviors about sugary drinks. (A detailed description of methods, as well as results from surveys 1-4, can be found in the report “Results from Play Every Day’s Sugary Drinks Media Campaign 2014-2015 Changes in Knowledge, Attitudes, and Behaviors about Physical Activity and Sugary Drinks Following Alaska’s Play Every Day Media Campaign, June, 2015”). Key points following survey 5 are described here:

PSA Recall and Reaction

- Over half of survey respondents in urban areas of the state recalled the Play Every Day campaign generally, and substantial proportions of respondents recalled the specific PSAs in each survey period, particularly in survey 1 (Active Family PSA) and survey 5 (Active Kids PSA). There was, however, a significant overall downward trend in recall of the general campaign and specific PSAs over time, despite an increase from survey 4 to survey 5.
- The majority of respondents said that the PSAs made them want to get more active with their children, want to drink healthier beverages, want to buy fewer sugary drinks, want to drink fewer sugary drinks, and want to serve fewer sugary drinks to their children; however, fewer than one-third of respondents said that the PSAs had an impact on their actual purchase or consumption of sugary drinks.
- Across the surveys, at least 70% of respondents said they would like to see more PSAs on the same topics. Respondents were particularly interested in seeing more PSAs about physical activity and families (survey 1, 85% and survey 5, 88%).
- Respondents who recalled the specific PSA in each survey period were more likely to know the physical activity recommendation for 7 days per week/60 minutes per day than respondents who did not recall the PSAs. However, as was described in the previous report, respondents who recalled specific PSAs were more likely to provide sugary drinks to their children or consume sugary drinks themselves.

Sugary Drink Behaviors

- From survey 1 to survey 5 there was:
 - a significant *decrease* in the proportion of respondents who said they provided one or more sugary drinks per week to their children, particularly soda;
 - a significant *increase* in the proportion of respondents who provided more water to their children; and
 - a significant *decrease* in the proportion of respondents who said they provided milk to their children.
- A strong majority (70%) of respondents in survey 5 said they have been limiting the amount of sugary drinks they provide to their children for 6 months or longer.

Attitudes about Sugary Drinks

- Among the 204 (41%) respondents in survey 5 who agreed it is harmful to their child's health to drink a sugary drink 1 time per week, more than one third of them served at least one sugary drink to their child in the prior week.
- In contrast, those who did not think that it is harmful for their child to drink a sugary drink 1 time per week were much more likely to provide sugary drinks to their children.

Results

Demographics

Table 1. Demographics of Survey Respondents^a

		Survey 1 -All (n=750)		Survey 1 - Urban Only (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)		Survey 6 - All (n=751)		Survey 6 – Urban Only (n=594)	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Region																	
	Anchorage/Mat-Su	45.8	343	63.6	343	70.0	350	70.0	350	70.0	351	75.2	376	51.9	390	65.7	390
	Gulf Coast	15.2	114	-	-	-	-	-	-	-	-	-	-	7.9	59	-	-
	Southeast	12.9	97	18.0	97	12.0	60	12.0	60	12.0	60	6.0	30	12.1	91	15.3	91
	Rural Alaska	12.9	97	-	-	-	-	-	-	-	-	-	-	13.1	98	-	-
	Fairbanks/North Star	13.2	99	18.4	99	18.0	90	18.0	90	18.0	90	18.8	94	15.1	113	19.0	113
Race^b																	
	White	77.6	572	80.1	422	81.1	395	80.3	390	80.5	397	83.9	411	77.9	577	80.7	471
	ANAI	11.5	85	6.8	36	5.8	28	9.5	46	7.3	36	8.0	39	12.4	92	8.6	50
	Other	10.9	80	13.1	69	13.1	64	10.3	50	12.2	60	8.2	40	9.7	72	10.8	63
Gender																	
	Male	31.3	235	30.1	162	36.0	180	41.5	206	37.6	187	36.3	181	40.2	302	41.2	245
	Female	68.7	515	69.9	377	64.0	320	58.5	290	62.4	310	63.7	318	59.8	449	58.8	349
Age^c																	
	<=29	13.1	98	2.6	14	2.2	11	3.1	15	2.2	11	4.9	24	3.2	24	2.9	17
	30-39	43.6	327	37.8	201	37.2	182	40.7	195	33.0	162	53.1	261	36.0	267	36.1	212
	40-49	37.6	282	45.3	241	49.6	243	42.6	204	49.5	243	31.5	155	47.4	352	47.7	280
	50+	4.3	32	14.3	76	11.0	54	13.6	65	15.3	75	10.6	52	13.3	99	13.3	78
Household Income																	
	\$0-\$19.9k	3.0	21	2.0	10	3.9	18	3.5	15	1.9	9	3.4	16	3.7	26	2.4	13
	\$20-\$49.9k	18.1	126	17.4	87	17.7	82	20.9	89	17.4	81	13.6	63	15.8	110	15.0	83
	\$50-\$74.9k	17.8	124	18.8	94	15.5	72	12.2	52	15.7	73	17.0	79	16.7	116	15.0	83
	\$75-\$99.9k	21.4	149	22.7	113	19.8	92	25.4	108	18.9	88	20.7	96	18.0	125	17.0	94
	\$100k+	39.6	275	39.1	195	43.1	200	37.9	161	46.1	215	45.4	211	45.8	318	50.5	279
	< 185% PGL ^d	21.6	150	19.2	96	22.4	104	24.0	102	20.6	96	17.9	83	22.0	153	19.0	105
	≥185% PGL ^d	78.4	545	80.8	403	77.6	360	76.0	323	79.4	370	82.2	382	78.0	542	81.0	447

		Survey 1 -All (n=750)		Survey 1 - Urban Only (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)		Survey 6 - All (n=751)		Survey 6 – Urban Only (n=594)	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Education																	
	< H.S.	3.0	22	2.3	12	2.2	11	3.5	17	2.7	13	3.2	16	3.3	25	2.7	16
	H.S. or GED	19.6	146	17.2	92	12.4	61	22.2	108	18.9	93	16.4	81	21.0	157	18.8	111
	Some college	28.2	210	29.0	155	27.4	135	29.0	141	27.1	133	29.9	148	25.6	191	26.2	155
	College +	49.2	366	51.5	275	58.0	286	45.3	220	51.3	252	50.5	250	50.1	374	52.3	309
# Children 5-12 in Household 4 days /week^e																	
	1	49.9	374	50.8	274	47.6	238	48.2	241	48.5	243	43.0	215	45.9	345	46.6	277
	2	35.1	263	34.9	188	37.8	189	33.4	167	33.1	166	36.6	183	36.6	275	36.4	216
	3	10.0	75	8.7	47	11.0	55	11.6	58	13.2	66	14.0	70	11.6	87	11.6	69
	4	3.9	29	4.1	22	2.4	12	4.6	23	4.0	20	4.4	22	4.9	37	4.9	29
	5	0.9	7	1.1	6	1.0	5	1.2	6	0.8	4	2.0	10	0.5	4	0.3	2
	6	0.3	2	0.4	2	0.2	1	0.6	3	0.0	0	0.0	0	0.4	3	0.2	1
	7	0.0	0	0.0	0	0.0	0	0.4	2	0.2	1	0.0	0	0.0	0	0.0	0
	8	0.0	0	0.0	0	0.0	0	0.0	0	0.2	1	0.0	0	0.0	0	0.0	0
Child Age^f																	
	5	12.3	92	11.9	64	9.2	46	13.0	65	9.4	47	12.4	62	9.3	70	9.6	57
	6	9.5	71	9.3	50	12.5	62	13.4	67	10.2	51	11.0	55	9.2	69	9.3	55
	7	13.2	99	14.1	76	11.4	57	12.0	60	10.2	51	11.0	55	12.8	96	13.7	81
	8	11.3	85	11.9	64	12.7	63	9.0	45	11.4	57	13.0	65	11.9	89	11.6	69
	9	13.0	97	12.1	65	10.4	52	13.2	66	13.2	66	12.8	64	12.3	92	12.0	71
	10	13.8	103	14.3	77	15.1	75	11.2	56	16.8	84	13.4	67	14.9	112	15.7	93
	11	13.0	97	12.3	66	13.3	66	14.6	73	16.8	84	13.2	66	14.4	108	13.5	80
	12	14.0	105	14.1	76	15.5	77	13.6	68	11.8	59	13.2	66	15.2	114	14.7	87
Phone Type																	
	Landline	80.0	600	79.4	428	80.0	400	80.0	400	80.0	401	80.0	400	70.0	526	32.5	193
	Cell Phone	20.0	150	20.6	111	20.0	100	20.0	100	20.0	100	20.0	100	30.0	225	67.5	401

^aExcludes respondents who answered don't know/not sure or refused.

^b"ANAI" includes all survey respondents who report being Alaska Native/American Indian, alone or in combination with another race. "White" includes only non-Hispanic White. "Other" includes those who report all other races/ethnicities or multiple race groups, not including ANAI.

^cMedian age of respondents: survey 1 = 42, survey 2 = 42, survey 3 = 41, survey 4 = 42, survey 5 = 38, survey 6 = 41

^dAlaska Poverty Guidelines.

^eMedian # children 5-12: 2 (all surveys)

^fMedian age of children 5-12 = 9 (all surveys)

Trend Analysis: Statistical Comparison of Surveys 1 through 5 – Urban Respondents Only

Table 2 compares responses from survey 1 to survey 2, survey 2 to survey 3, survey 3 to survey 4, survey 4 to 5, survey 5 to survey 6, and survey 1 to survey 6 for items that repeated across at least two of the six survey administrations for urban respondents only. The frequencies of responses to all survey items for each survey are provided in Appendix 1.

Table 2. Comparison of Knowledge, Attitudes, Behaviors for All Surveys – Urban Respondents Only^{a, b}

Outcomes	Survey 1 % agree (n=539)	Survey 2 % agree (n=500)	p- value	Survey 2 % agree (n=500)	Survey 3 % agree (n=500)	p- value	Survey 3 % agree (n=500)	Survey 4 % agree (n=501)	p-value	Survey 4 % agree (n=501)	Survey 5 % agree (n=500)	p-value	Survey 5 % agree (n=500)	Survey 6 % agree (n=594)	p- value	Survey 1 % agree (n=539)	Survey 6 % agree (n=594)	p- value
KNOWLEDGE																		
Non-diet sodas contain added sugars	91.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91.7	91.5	0.910
Sports drinks such as Gatorade and Powerade contain added sugars.	94.7	92.2	0.112	92.2	90.0	0.244	90.0	92.9	0.110	92.9	-	-	-	94.5	-	94.7	94.5	0.937
Non-diet Vitamin Water contains added sugars.	83.3	81.0	0.375	81.0	77.1	0.160	77.1	85.3	0.002*	85.3	-	-	-	-	-	83.3	84.3	0.666
Non-diet fruit drinks contain added sugars	95.3	-	-	-	-	-	-	-	-	-	-	-	-	95.3	-	95.3	95.3	0.993
Sugary drinks are linked to tooth decay and cavities.	98.1	-	-	-	-	-	-	-	-	-	-	-	-	98.7	-	98.1	98.6	0.494
Sugary drinks are linked to diabetes, even in young children.	95.4	93.2	0.131	93.2	95.6	0.104	95.6	96.1	0.702	96.1	-	-	-	97.4	-	95.4	97.4	0.069
Sugary drinks are linked to weight gain and obesity in adults.	97.2	97.4	0.857	97.4	96.2	0.289	96.2	97.4	0.291	97.4	-	-	-	-	-	97.2	-	-
Sugary drinks are linked to weight gain and obesity in children.	-	-	-	97.2	95.8	0.238	95.8	97.0	0.314	97.0	-	-	-	98.1	-	-	98.1	-
Sugary drinks are linked to heart disease.	89.1	88.9	0.956	88.9	88.7	0.915	88.7	90.5	0.372	90.5	-	-	-	94.6	-	89.1	94.6	0.001*
Water or low-fat milk are the healthiest drink options for my family.	95.7	95.4	0.788	95.4	95.6	0.890	95.6	91.4	0.008*	91.4	-	-	-	94.4	-	95.7	94.4	0.315

Outcomes	Survey 1 % agree (n=539)	Survey 2 % agree (n=500)	p- value	Survey 2 % agree (n=500)	Survey 3 % agree (n=500)	p- value	Survey 3 % agree (n=500)	Survey 4 % agree (n=501)	p-value	Survey 4 % agree (n=501)	Survey 5 % agree (n=500)	p-value	Survey 5 % agree (n=500)	Survey 6 % agree (n=594)	p- value	Survey 1 % agree (n=539)	Survey 6 % agree (n=594)	p- value
I know how to identify added sugars on the ingredient list of a drink.	98.1	96.4	0.088	96.4	96.8	0.736	96.8	98.0	0.229	98.0	-	-	-	-	-	98.1	-	-
If added sugars are named in the first three ingredients of a drink, that drink is high in sugar.	97.0	96.8	0.857	96.8	96.7	0.981	96.7	97.0	0.833	97.0	-	-	-	-	-	97.0	-	-
A 20-ounce bottle of non-diet soda has as much sugar as 16 chocolate mini donuts.	89.3	93.1	0.051*	93.1	92.1	0.584	92.1	93.3	0.494	93.3	-	-	-	95.3	-	89.3	95.3	0.000*
Knows physical activity recommendation 7 days/wk, 60 min/day	33.0	-	-	-	-	-	-	-	-	-	32.4	-	32.4	-	-	-	-	-
ATTITUDES																		
It is important for me to set an example for my child by consuming fewer sugary drinks.	97.2	97.0	0.835	97.0	96.4	0.591	96.4	97.4	0.359	97.4	-	-	-	-	-	-	-	-
BEHAVIORS																		
Buying decisions based on ingredients	92.8	91.8	0.566	91.8	87.7	0.034*	87.7	91.6	0.046*	91.6	-	-	-	-	-	-	-	-
Limit drinks with added sugars	96.1	98.2	0.044*	98.2	97.4	0.394	97.4	97.2	0.854	97.2	-	-	-	-	-	-	-	-
Provide soda to child (% at least 1/wk)	37.8	35.7	0.473	35.7	31.1	0.127	31.1	32.1	0.749	32.1	32.5	0.892	32.5	34.4	0.498	37.8	34.4	0.233
Consume soda – adult (% at least 1/wk)	35.0	37.6	0.395	37.6	35.9	0.582	35.9	33.0	0.340	33.0	40.6	0.013*	40.6	37.3	0.260	35.0	37.3	0.430
Provide fruit drinks to child (% at least 1/wk)	32.4	27.9	0.119	27.9	27.4	0.856	27.4	26.7	0.786	26.7	28.6	0.498	28.6	14.6	0.000*	32.4	14.6	0.000*
Consume fruit drinks – adult (% at least 1/wk)	12.4	7.8	0.014*	7.8	8.2	0.816	8.2	8.2	1.000	8.2	8.8	0.741	8.8	7.6	0.466	12.4	7.6	0.006*

Outcomes	Survey 1 % agree (n=539)	Survey 2 % agree (n=500)	p- value	Survey 2 % agree (n=500)	Survey 3 % agree (n=500)	p- value	Survey 3 % agree (n=500)	Survey 4 % agree (n=501)	p-value	Survey 4 % agree (n=501)	Survey 5 % agree (n=500)	p-value	Survey 5 % agree (n=500)	Survey 6 % agree (n=594)	p- value	Survey 1 % agree (n=539)	Survey 6 % agree (n=594)	p- value
Provide sports drinks to child (% at least 1/wk)	26.1	17.9	0.002*	17.9	23.5	0.030*	23.5	22.9	0.826	22.9	21.2	0.530	21.2	18.8	0.317	26.1	18.8	0.003*
Consume sports drinks – adult (% at least 1/wk)	20.3	16.6	0.133	16.6	18.9	0.354	18.9	16.6	0.354	16.6	17.8	0.625	17.8	13.2	0.035*	20.3	13.2	0.001*
Provide energy drinks to child (% at least 1/wk)	0.9	0.4	0.300	0.4	0.8	0.411	0.8	0.6	0.699	0.6	0.6	1.000	0.6	0.5	0.835	0.9	0.5	0.397
Consume energy drinks – adult (% at least 1/wk)	7.1	7.4	0.827	7.4	11.6	0.024*	11.6	9.1	0.183	9.1	13.0	0.046*	13.0	10.1	0.133	7.1	10.1	0.068
Provide coffee drinks to child (% at least 1/wk)	3.2	3.4	0.823	3.4	3.4	0.995	3.4	3.4	0.991	3.4	4.2	0.508	4.2	3.2	0.382	3.2	3.2	0.966
Consume coffee drinks – adult (% at least 1/wk)	37.0	42.1	0.096	42.1	34.3	0.011*	34.3	35.3	0.722	35.3	43.6	0.008*	43.6	38.8	0.109	37.0	38.8	0.534
Provide milk to child (% at least 1 per day)	70.6	71.3	0.786	71.3	68.7	0.369	68.7	67.1	0.587	67.1	62.5	0.127	62.5	62.5	0.982	70.6	62.5	0.004*
Provide water to child (% at least 2 per day)	71.1	78.8	0.004*	78.8	83.4	0.064	83.4	81.2	0.356	81.2	82.4	0.627	82.4	82.9	0.821	71.1	82.9	0.000*
Provide any sugary drink to child (% at least 1/wk)	63.7	55.1	0.005*	55.1	53.4	0.584	53.4	55.0	0.617	55.0	54.4	0.853	54.4	51.3	0.313	63.7	51.3	0.000*
School participated in Healthy Futures	57.7	-	-	-	-	-	-	53.9	-	53.9	53.8	0.977	53.8	-	-	57.7	-	-
Child participated in Healthy Futures (among those whose school participated)	81.4	-	-	-	-	-	-	86.3	-	86.3	84.2	0.501	84.2	-	-	81.4	-	-
PSA RECALL																		
General campaign recall – Play Every Day	56.4	53.0	0.271	53.0	53.0	1.000	53.0	49.1	0.217	49.1	51.4	0.467	51.4	42.2	0.003*	56.4	42.4	0.000*
Specific PSA recall – Active Family PSA (S1), Doughnut/Sugary Drink PSA (S2), Role Model/Sugary Drink PSA (S3), Ingredient	57.3	42.6	0.000*	42.6	36.6	0.052*	36.6	25.8	0.000*	25.8	50.2	0.000*	50.2	32.8	0.000*	57.3	32.8	0.000*

Outcomes	Survey 1 % agree (n=539)	Survey 2 % agree (n=500)	p- value	Survey 2 % agree (n=500)	Survey 3 % agree (n=500)	p- value	Survey 3 % agree (n=500)	Survey 4 % agree (n=501)	p-value	Survey 4 % agree (n=501)	Survey 5 % agree (n=500)	p-value	Survey 5 % agree (n=500)	Survey 6 % agree (n=594)	p- value	Survey 1 % agree (n=539)	Survey 6 % agree (n=594)	p- value
List PSA (S4), Active Kids (S5) , Teeth & Swap combined (S6)																		
Heard about PED website	39.0	-	-	-	-	-	-	52.1	-	52.1	-	0.000* ^c	-	-	-	39.0	-	-
Used PED website	17.2	-	-	-	-	-	-	17.3	-	17.3	-	0.981 ^c	-	-	-	17.2	-	-

^a Denominators for KAB questions exclude don't know/not sure and refused. Denominators for PSA recall questions include total sample for each survey, including don't know/not sure and refused.

^b Statistically significant differences are indicated by * (p-values ≤ 0.05).

^c Survey 1 to Survey 4 comparison

Table 3. Trend (Unadjusted) From Survey 1 to Survey 6 Using Logistic Regression of Knowledge, Attitudes, Behaviors, and PSA Recall for All Surveys – Urban Respondents Only^{a,b,c}

Odds ratios (OR) less than 1.0 indicate a declining trend from survey 1 to survey 6 (for survey items that appear in both surveys); OR greater than 1.0 indicate an increasing trend.

Outcomes	Odds Ratios	95% CI	p-value
KNOWLEDGE			
Non-diet sodas contain added sugar (surveys 1 & 6)	1.00	(.91-1.08)	0.910
Sports drinks such as Gatorade and Powerade contain added sugars (surveys 1, 2, 3, 4, & 6)	1.03	(.94-1.12)	0.552
Non-diet Vitamin Water contains added sugars (surveys 1, 2, 3, 4, & 6)	1.04	(.98-1.11)	0.191
Non-diet fruit drinks contain added sugars (surveys 1 & 6)	1.00	(.89-1.12)	0.993
Sugary drinks are linked to tooth decay (surveys 1 & 6)	1.07	(.88-1.29)	0.885
Sugary drinks are linked to diabetes, even in young children (surveys 1, 2, 3, 4, & 6)	1.16	(1.04-1.30)	0.010*
Sugary drinks are linked to weight gain and obesity in children (surveys 2, 3, 4, & 6 only)	1.15	(.96-1.37)	0.96
Sugary drinks are linked to heart disease (surveys 1, 2, 3, 4, & 6)	1.15	(1.06-1.23)	0.001*
Water or low-fat milk are the healthiest drink options for my family (surveys 1, 2, 3, 4, & 6)	0.92	(.84-1.01)	0.097
A 20-ounce bottle of non-diet soda has as much sugar as 16 chocolate mini donuts (surveys 1, 2, 3, 4, & 6)	1.17	(1.06-1.29)	0.001*
ATTITUDES (no survey 6)			
BEHAVIORS (all 6 surveys)			
Provide soda to child (% at least 1/wk)	0.97	(.93-1.01)	0.149
Consume soda – adult (% at least 1/wk)	1.02	(.98-1.06)	0.318
Provide fruit drinks to child (% at least 1/wk)	0.87	(.83-.91)	0.000*
Consume fruit drinks – adult (% at least 1/wk)	0.93	(.86-.99)	0.032*

Outcomes	Odds Ratios	95% CI	p-value
Provide sports drinks to child (% at least 1/wk)	0.95	(.91-1.00)	0.053*
Consume sports drinks – adult (% at least 1/wk)	0.93	(.88-.98)	0.008*
Provide energy drinks to child (% at least 1/wk)	0.92	(.72-1.19)	0.531
Consume energy drinks – adult (% at least 1/wk)	1.10	(1.02-1.18)	0.008*
Provide coffee drinks to child (% at least 1/wk)	1.02	(.91-1.14)	0.730
Consume coffee drinks – adult (% at least 1/wk)	1.02	(.98-1.06)	0.416
Provide milk to child (% at least 1 per day)	0.92	(.88-.96)	0.000*
Provide water to child (% at least 2 per day)	1.13	(1.07-1.19)	0.000*
Provide any sugary drink to child (% at least 1/wk)	0.93	(.89-.97)	0.000*
PSA RECALL (all 6 surveys)			
General campaign recall – Play Every Day	0.91	(.88-.95)	0.000*
Specific PSA recall – Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active PSA (survey 5), both Kids Teeth and Sugar Swap PSAs combined (survey 6)	0.87	(.84-.91)	0.000*

^a Each survey item excludes don't know/not sure and refusals from the denominator except general and specific PSA recall, which include the whole sample.

^b Unadjusted odds ratios.

^c Statistically significant differences are indicated by * (p-values ≤ 0.05).

Table 4a. Association of PSA Recall with Knowledge, Attitudes, Behaviors – Urban Responders Only^{a,b}

Outcomes ^b	Recalled Specific PSA (combined for PSA associated with each survey) Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active (survey 5), Teeth Swap (survey 6)			Recalled Kid’s Teeth PSA (Survey 6 only)			Recalled Sugar Swap PSA (survey 6 only)		
	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value
KNOWLEDGE									
Non-diet soda contains added sugar (survey 1 & 6)	91.9	91.2	0.680	92.2	89.8	0.350	91.5	91.8	0.930
Sports drinks contain added sugar (survey 1 & 6)	93.2	92.6	0.591	95.3	92.7	0.218	94.3	95.7	0.575
Non-diet vitamin water contains added sugar (surveys 1, 2, 3, 4, & 6)	82.6	81.7	0.606	85.1	82.2	0.411	84.6	83.0	0.706
Non-diet energy drinks contain added sugar (survey 6)	93.9	90.6	0.143	94.1	89.6	0.062	92.9	92.6	0.913
Non-diet fruit drinks contain added sugar (surveys 1 & 6)	95.2	95.4	0.895	95.5	94.6	0.614	95.4	94.7	0.796
Sugary drinks linked to tooth decay and cavities (surveys 1 & 6)	98.3	98.6	0.630	98.6	98.8	0.844	98.6	99.0	0.768
Sugary drinks linked to diabetes in kids (surveys 1, 2, 3, 4, & 6)	95.6	95.8	0.801	97.6	97.0	0.663	98.0	94.8	0.072
Sugary drinks linked to obesity in adults (surveys 1, 2, 3, & 4)	96.3	98.2	0.011*	-	-	-	-	-	-
Sugary drinks linked to obesity in kids (surveys 2, 3, 4, & 6)	96.6	97.9	0.103	98.4	97.6	0.544	98.0	99.0	0.509
Sugary drinks linked to heart disease (surveys 1, 2, 3, 4, & 6)	90.3	90.9	0.643	95.1	93.6	0.479	94.9	93.3	0.530
Young children <= 4 tsp sugar per day (survey 1)	91.8	92.9	0.667	-	-	-	-	-	-
Water low-fat milk healthiest options (survey 1, 2, 3, 4, & 6)	93.7	95.8	0.019*	93.9	95.8	0.366	94.3	94.8	0.861
20-oz soda = 16 mini doughnuts (surveys 1, 2, 3, 4 & 6)	92.8	92.8	0.937	95.0	96.1	0.575	95.3	95.7	0.852
Sugary drinks linked to liver disease (survey 6)	90.4	83.9	0.040*	90.5	82.5	0.016*	88.8	84.6	0.303
Sugary drinks linked to cancer (survey 6)	81.7	76.7	0.192	82.0	75.4	0.098	80.2	79.2	0.852

Outcomes ^b	Recalled Specific PSA (combined for PSA associated with each survey) Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active (survey 5), Teeth Swap (survey 6)			Recalled Kid's Teeth PSA (Survey 6 only)			Recalled Sugar Swap PSA (survey 6 only)		
	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value
Knows PA recommendation 7 days/wk, 60 min/day (surveys 1 and 5)	-	-	-	-	-	-	-	-	-
ATTITUDES									
Harmful to child to drink sugary drinks every day (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sugary drink 5-6 times per week (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sugary drink 3-4 times per week (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sugary drink 1 time per week (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sports drinks (survey 5)	-	-	-	-	-	-	-	-	-
BEHAVIORS									
Provide soda to child (% at least 1/wk) (all surveys)	31.4	37.7	0.000*	32.7	38.8	0.163	32.9	42.3	0.075
Consume soda – adult (% at least 1/wk) (all surveys)	34.0	40.2	0.000*	34.2	45.2	0.013*	34.1	53.6	0.000*
Provide fruit drinks to child (% at least 1/wk) (all surveys)	22.8	30.6	0.000*	11.6	22.3	0.001*	12.8	23.7	0.005*
Consume fruit drinks – adult (% at least 1/wk) (all surveys)	8.3	9.6	0.211	7.0	9.0	0.407	6.9	11.3	0.127
Provide sports drinks to child (% at least 1/wk) (all surveys)	18.9	25.8	0.000*	17.0	23.4	0.076	17.9	23.7	0.177
Consume sports drinks – adult (% at least 1/wk) (all surveys)	15.7	19.3	0.009*	12.7	14.5	0.572	13.2	13.4	0.948
Provide energy drinks to child (% at least 1/wk) (all surveys)	0.6	0.7	0.708	0.5	0.6	0.838	0.6	0.0	0.442
Consume energy drinks – adult (% at least 1/wk) (all surveys)	9.2	10.4	0.269	8.2	15.0	0.014*	9.7	12.4	0.421
Provide coffee drinks to child (% at least 1/wk) (all surveys)	3.4	3.5	0.853	3.3	3.0	0.869	3.2	3.1	0.946
Consume coffee drinks – adult (% at least 1/wk) (all surveys)	37.5	40.0	0.161	37.3	42.5	0.243	37.3	46.4	0.093
Provide milk to child (% at least 1 per day) (all surveys)	65.3	69.6	0.011*	61.1	65.9	0.283	60.8	71.1	0.054*

Outcomes ^b	Recalled Specific PSA (combined for PSA associated with each survey) Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active (survey 5), Teeth Swap (survey 6)			Recalled Kid's Teeth PSA (Survey 6 only)			Recalled Sugar Swap PSA (survey 6 only)		
	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value
Provide water to child (% at least 2 per day) (all surveys)	80.8	78.7	0.150	82.6	83.7	0.739	82.2	86.5	0.313
Provide any sugary drink to child (% at least 1/wk) (all surveys)	50.8	62.2	0.000*	48.1	59.4	0.014*	49.0	62.9	0.012*
Stages of Change ^c	-	-	-	-	-	-	-	-	-
Do not intend to limit sugary drinks	-	-	-	-	-	-	-	-	-
Thinking about limiting sugary drinks in future	-	-	-	-	-	-	-	-	-
Thinking about limiting sugary drinks in next month	-	-	-	-	-	-	-	-	-
Recently been limiting sugary drinks	-	-	-	-	-	-	-	-	-
Limiting sugary drinks for 6 months	-	-	-	-	-	-	-	-	-
Child does not drink sugary drinks	-	-	-	-	-	-	-	-	-

^aAsterix (*) indicates statistically significant different proportions within each recall group at the p <=0.05 level.

^bEach survey item excludes don't know/not sure and refusals from the denominator except general and specific PSA recall.

^cStages of Change evaluated together

Table 4b. Association of PSA Recall with Knowledge, Attitudes, Behaviors – Rural Responders Only^{a,b}

Outcomes ^b	Recalled Specific PSA (combined for PSA associated with each survey) Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active (survey 5), Teeth Swap (survey 6)			Recalled Kid’s Teeth PSA (Survey 6 only)			Recalled Sugar Swap PSA (survey 6 only)		
	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value
KNOWLEDGE									
Non-diet soda contains added sugar (survey 1 & 6)	91.9	94.0	0.432	94.6	97.8	0.384	95.5	95.8	0.934
Sports drinks contain added sugar (survey 1 & 6)	94.0	90.6	0.220	95.5	91.1	0.287	95.5	87.5	0.124
Non-diet vitamin water contains added sugar (surveys 1, 2, 3, 4, & 6)	82.7	84.9	0.594	86.3	82.1	0.529	85.1	85.0	0.988
Non-diet energy drinks contain added sugar (survey 6)	93.3	84.8	0.099	92.6	85.7	0.194	92.2	81.8	0.122
Non-diet fruit drinks contain added sugar (surveys 1 & 6)	93.5	95.6	0.378	94.6	97.8	0.389	95.5	95.8	0.940
Sugary drinks linked to tooth decay and cavities (surveys 1 & 6)	99.5	98.4	0.304	100.0	100.0	1.000	100.0	100.0	1.000
Sugary drinks linked to diabetes in kids (surveys 1, 2, 3, 4, & 6)	98.9	96.7	0.146	99.1	100.0	0.525	99.3	100.0	0.670
Sugary drinks linked to obesity in adults (surveys 1, 2, 3, & 4)	100.0	98.5	0.280	-	-	-	-	-	-
Sugary drinks linked to obesity in kids (surveys 2, 3, 4, & 6)	98.2	95.9	0.411	98.2	95.6	0.339	97.7	95.8	0.584
Sugary drinks linked to heart disease (surveys 1, 2, 3, 4, & 6)	96.4	91.3	0.055	99.0	100.0	0.510	100.0	95.8	0.024*
Young children <= 4 tsp sugar per day (survey 1)	87.8	90.4	0.570	-	-	-	-	-	-
Water low-fat milk healthiest options (survey 1, 2, 3, 4, & 6)	99.5	98.4	0.307	99.1	100.0	0.523	99.2	100.0	0.669
20-oz soda = 16 mini doughnuts (surveys 1, 2, 3, 4 & 6)	96.0	90.8	0.069	97.9	92.9	0.140	99.2	81.8	0.000*
Sugary drinks linked to liver disease (survey 6)	95.1	90.7	0.337	92.9	95.0	0.661	95.2	86.4	0.127
Sugary drinks linked to cancer (survey 6)	92.9	80.0	0.030*	92.1	80.5	0.057	90.6	78.3	0.095
Knows PA recommendation 7 days/wk, 60 min/day (surveys 1 and 5)	-	-	-	-	-	-	-	-	-
ATTITUDES									

Outcomes ^b	Recalled Specific PSA (combined for PSA associated with each survey) Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active (survey 5), Teeth Swap (survey 6)			Recalled Kid's Teeth PSA (Survey 6 only)			Recalled Sugar Swap PSA (survey 6 only)		
	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value
Harmful to child to drink sugary drinks every day (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sugary drink 5-6 times per week (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sugary drink 3-4 times per week (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sugary drink 1 time per week (survey 5)	-	-	-	-	-	-	-	-	-
Harmful to child to drink sports drinks (survey 5)	-	-	-	-	-	-	-	-	-
BEHAVIORS									
Provide soda to child (% at least 1/wk) (all surveys)	33.0	39.8	0.176	36.0	37.8	0.838	37.9	29.2	0.415
Consume soda – adult (% at least 1/wk) (all surveys)	36.6	44.8	0.110	35.7	44.4	0.309	38.4	37.5	0.937
Provide fruit drinks to child (% at least 1/wk) (all surveys)	31.2	45.6	0.005*	26.4	48.9	0.007*	29.8	50.0	0.053*
Consume fruit drinks – adult (% at least 1/wk) (all surveys)	12.9	20.3	0.055*	6.3	31.1	0.000*	10.5	29.2	0.014*
Provide sports drinks to child (% at least 1/wk) (all surveys)	18.4	29.4	0.013*	15.3	29.6	0.043*	16.8	33.3	0.059
Consume sports drinks – adult (% at least 1/wk) (all surveys)	16.7	19.2	0.522	18.8	17.8	0.887	18.1	20.8	0.746
Provide energy drinks to child (% at least 1/wk) (all surveys)	1.1	0.0	0.161	0.9	0.0	0.523	0.8	0.0	0.669
Consume energy drinks – adult (% at least 1/wk) (all surveys)	7.0	9.3	0.410	8.0	11.1	0.541	9.0	8.3	0.913
Provide coffee drinks to child (% at least 1/wk) (all surveys)	4.3	1.1	0.059	4.5	2.2	0.508	4.5	0.0	0.289
Consume coffee drinks – adult (% at least 1/wk) (all surveys)	41.3	36.3	0.322	46.0	40.0	0.498	43.2	50.0	0.536
Provide milk to child (% at least 1 per day) (all surveys)	63.2	66.9	0.469	55.4	79.6	0.005*	59.4	78.3	0.085
Provide water to child (% at least 2 per day) (all surveys)	80.9	71.1	0.029*	86.4	86.4	1.000	86.3	87.0	0.928
Provide any sugary drink to child (% at least 1/wk) (all surveys)	55.0	71.4	0.001*	52.3	68.2	0.074	53.5	75.0	0.052*

Outcomes ^b	Recalled Specific PSA (combined for PSA associated with each survey) Active Family PSA (survey 1), Doughnut/Sugary Drink PSA (survey 2), Role Model/Sugary Drink PSA (survey 3), Ingredient List PSA (survey 4), Kids Active (survey 5), Teeth Swap (survey 6)			Recalled Kid's Teeth PSA (Survey 6 only)			Recalled Sugar Swap PSA (survey 6 only)		
	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value	Did Not Recall (% yes for outcome)	Recalled (% yes for outcome)	p-value
Stages of Change ^c	-	-	-	-	-	-	-	-	-
Do not intend to limit sugary drinks	-	-	-	-	-	-	-	-	-
Thinking about limiting sugary drinks in future	-	-	-	-	-	-	-	-	-
Thinking about limiting sugary drinks in next month	-	-	-	-	-	-	-	-	-
Recently been limiting sugary drinks	-	-	-	-	-	-	-	-	-
Limiting sugary drinks for 6 months	-	-	-	-	-	-	-	-	-
Child does not drink sugary drinks	-	-	-	-	-	-	-	-	-

^aAsterix (*) indicates statistically significant different proportions within each recall group at the $p \leq 0.05$ level.

^bEach survey item excludes don't know/not sure and refusals from the denominator except general and specific PSA recall.

^cStages of Change evaluated together

Analysis of Attitudes about Harms of Sugary Drinks and Sugary Drink Behaviors (Survey 5)

Table 5 shows the association between attitudes about the harms of sugary drinks and sugary drink behavior.

Table 5. Association of Attitudes and Behaviors – Survey 5 Only

Behavior	% who provide beverage to child among those who think it is harmful to child's health to drink sugary drink 1 time per week (n=204) ^a	% who provide beverage to child among those who DO NOT think it is harmful to child's health to drink sugary drink 1 time per week (n=292) ^a	p-value	% who provide sports drink to child among those who think it is harmful to child's health to drink a sports drink at sports or physically active(n=245) ^a	% who provide sports drink to child among those who DO NOT think it is harmful to child's health to drink a sports drink at sports or physically active(n=236) ^a	p-value
Provide soda to child (% at least 1/wk)	18.8	42.3	0.000*			
Provide fruit drinks to child (% at least 1/wk)	17.8	35.6	0.000*			
Provide sports drinks to child (% at least 1/wk)	16.2	25.0	0.018*	11.4	32.2	0.000*
Provide energy drinks to child (% at least 1/wk)	0.0	1.0	0.147			
Provide coffee drinks to child (% at least 1/wk)	2.5	5.5	0.101			
Provide milk to child (% at least 1 per day)	60.3	64.0	0.396			
Provide water to child (% at least 2 per day)	88.1	79.0	0.009*			
Provide any sugary drink to child (% at least 1/wk)	36.5	66.6	0.000*			

^aExcludes missing, DK, refused

How many sugary drinks are harmful?

When asked to agree or disagree with statements about how many sugary drinks are harmful to their child’s health, it appears that most considered 3-4 times per week or more as harmful, whereas 50% fewer said less than one time per week was harmful (Figure 1).

Figure 1: Percent Alaska Parents who Agree Sugary Drinks are Harmful

Table 6: Number of sugary drinks that are perceived harmful by Alaska parents

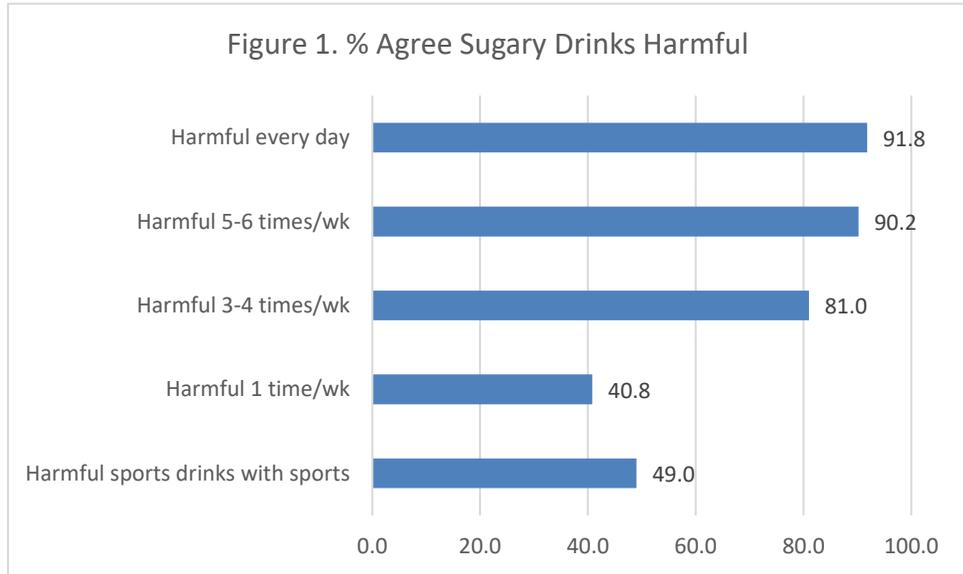


Table 6. Number of sugary drinks harmful	%
None	3.5
0.1-1 per week	15.8
1.1-4 per week	25.3
4.1-7 per week	11.5
1 per day	24.9
>1 per day	18.9

There were no significant differences by income, education, race, region, or recall of ads. There were significant differences by gender with females tending toward fewer sugary drinks per week considered as harmful.

APPENDIX 1: Frequencies of Responses to All Survey Questions

PSA Recall and Reaction

Table Appendix 1-1. Play Every Day Campaign Recall - General

	Survey 1 All (n=750)		Survey 1 Urban (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)		Survey 6 All (n=751)		Survey 6 Urban (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
General Recall ^a	57.5	431	56.4	304	53.0	265	53.0	265	49.1	246	51.4	257			42.4	252
Website																
Heard of website "PlayEveryDay.Alaska.gov" ^e	38.0	285	39.6	210	-	-	-	-	52.6	261	-	-	-	-	-	-
Visited website "PlayEveryDay.Alaska.gov" ^f	17.2	49	17.2	36	-	-	-	-	17.3	45	-	-	-	-	-	-

Table Appendix 1-2. Play Every Day Campaign Recall and Reaction-PSA Specific

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3-Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 - Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 - Kids Being Physically Active (n=500)		Survey 5 - Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
PSA Specific Recall ^b	58.9	442	18.4	138	42.6	213	36.6	183	30.6	153	25.6	129	34.5	173	50.2	251	37.0	185	28.2	212	28.1	167	16.1	121	16.3	97	32.5	244	32.8	195
Talked about PSAs with others ^d	17.4	77	21.7	30	24.9	53	13.7	25	-	-	14.8	19	-	-	19.9	50	20.1	32	23.2	49	20.5	34	20.8	25	18.8	18	-	-	-	-
PSAs gave new information or perspective ^d	27.7	121	47.1	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3- Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 – Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 – Kids Being Physically Active (n=500)		Survey 5 – Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n		
PSAs gave new information or perspective – sugar in drinks ^d	-	-	-	-	39.3	83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective – parental influence kids’ beverages ^d	-	-	-	-	-	-	40.1	73	-	-	38.3	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective – health problems/risks linked to sugary drinks/drinks with added sugar ^d	-	-	-	-	27.4	58	33.9	62	-	-	-	-	-	-	-	-	29.1	46	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective – how to find added sugars in drinks ^d	-	-	-	-	-	-	-	-	-	-	22.8	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective – importance of daily physical activity ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.9	64	-	-	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective –sugary drinks add up ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48.1	76	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective –types of drinks with added sugar ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30.6	48	-	-	-	-	-	-	-	-	-	-		
PSAs gave new information or perspective –impact sugar on teeth ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.9	61	25.3	42	-	-	-	-	-	-		
PSAs gave new information or perspective – switching sugary drinks ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36.1	43	31.3	30	-	-	-		

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3- Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 – Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 – Kids Being Physically Active (n=500)		Survey 5 – Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n		
PSAs made respondent want to get/help child more physically active ^d	48.0	208	52.2	71	-	-	-	-	-	-	-	-	-	-	50.4	125	-	-	-	-	-	-	-	-	-	-	-	-		
PSAs made respondent want to be more active (with child s1) ^d	63.5	275	59.4	82	-	-	-	-	-	-	-	-	-	-	49.4	124	-	-	-	-	-	-	-	-	-	-	-	-		
Did more physical activity because of PSAs ^d	26.3	114	28.7	39	-	-	-	-	-	-	-	-	-	-	24.2	59	-	-	-	-	-	-	-	-	-	-	-	-		
PSA made respondent want to figure out sugar content ^d	-	-	-	-	29.1	62	26.8	49	-	-	37.8	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
PSA made respondent want to drink healthier beverages ^d	-	-	-	-	52.4	111	52.8	96	-	-	52.3	67	-	-	-	-	57.9	92	-	-	-	-	-	-	-	-	-	-		
PSA made respondent want to buy fewer sugary drinks for family ^d	-	-	-	-	-	-	54.1	98	-	-	55.1	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
PSA made respondent want to drink fewer sugary drinks ^d	-	-	-	-	58.7	125	56.0	102	-	-	55.8	72	-	-	-	-	62.4	98	-	-	-	-	-	-	-	-	-	-		
PSA made respondent want serve fewer sugary drinks to child ^d	-	-	-	-	62.9	132	60.0	108	-	-	62.0	80	-	-	-	-	70.1	110	-	-	-	-	-	-	-	-	-	-		
Respondent bought fewer sugary drinks for family because of PSA ^d	-	-	-	-	-	-	24.7	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Respondent checked ingredient list before buying drinks because of PSA ^d	-	-	-	-	-	-	-	-	-	-	17.1	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Respondent or child drank fewer sugary drinks because of PSA ^d	-	-	-	-	18.0	37	26.4	48	-	-	19.4	25	-	-	-	-	28.2	44	-	-	-	-	-	-	-	-	-	-		
Respondent/child drank more water or milk because of PSA ^d	-	-	-	-	19.0	40	30.0	54	-	-	28.9	37	-	-	-	-	33.1	51	-	-	-	-	-	-	-	-	-	-		
Main message of Active Family PSAs ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3- Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 - Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 - Kids Being Physically Active (n=500)		Survey 5 - Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n		
Inspire your kids to play every day	79.9	345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Childhood obesity is a public health problem	16.0	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kids eat too much junk food	4.2	18	-	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Main message of animated child overweight PSA ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Overweight children face health risks during childhood	-	-	75.8	97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Drinking sugary drinks is linked to obesity	-	-	15.6	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kids need less screen time	-	-	8.6	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Main message of sugary drink/doughnut PSA ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lot of sugar hidden in drinks	-	-	-	-	33.7	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Too much sugar can lead to	-	-	-	-	12.9	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3- Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 – Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 – Kids Being Physically Active (n=500)		Survey 5 – Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n		
health problems																														
Don't let your children drink/eat too much sugar	-	-	-	-	10.4	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Choose healthier drinks like milk or water	-	-	-	-	10.4	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
There's as much sugar in soda as in mini donuts	-	-	-	-	2.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Other	-	-	-	-	30.2	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Main message of sugary drink/role model PSA ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Parents are role models	-	-	-	-	-	-	35.2	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Too much sugar lead to health problems	-	-	-	-	-	-	23.3	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Don't let your children eat too much sugar	-	-	-	-	-	-	7.4	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Choose healthier drinks	-	-	-	-	-	-	14.2	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Stop buying sugary	-	-	-	-	-	-	6.3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3- Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 – Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 – Kids Being Physically Active (n=500)		Survey 5 – Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
drinks for family																														
Other	-	-	-	-	-	-	13.6	24	-	-			-	-	-	-	-	-												
Main message of Ingredient List PSA ^d	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-												
Check the ingredient list to find sugars	-	-	-	-	-	-	-	-	-	-	16.0	20	-	-	-	-	-	-												
Too much sugar lead to health problems	-	-	-	-	-	-	-	-	-	-	19.2	24	-	-	-	-	-	-												
Sugar in first 3 ingredients means drink loaded sugar	-	-	-	-	-	-	-	-	-	-	12.0	15	-	-	-	-	-	-												
Drink or buy water or milk	-	-	-	-	-	-	-	-	-	-	12.8	16	-	-	-	-	-	-												
Confusing labels	-	-	-	-	-	-	-	-	-	-	4.0	5	-	-	-	-	-	-												
Parents know best/but water or milk	-	-	-	-	-	-	-	-	-	-	22.4	28	-	-	-	-	-	-												
Other	-	-	-	-	-	-	-	-	-	-	13.6	17	-	-	-	-	-	-												
Like to see more PSAs about... ^e	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
...ways families can be active	84.5	359	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
...health risks childhood obesity	-	-	78.5	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
...information about sugary drinks	-	-	-	-	72.1	147	72.3	170	-	-	73.6	173	-	-	-	-	83.1	128												

	Survey 1-Active Family (n=750)		Survey 1-Animated PED (n=750)		Survey 2-Doughnut Sugary Drink (n=500)		Survey 3- Role Model Sugary Drink (n=500)		Survey 3-Doughnut (100-day recall)		Survey 4 - Ingredient List (n=501)		Survey 4-Doughnut (6-month recall) (n=501)		Survey 5 - Kids Being Physically Active (n=500)		Survey 5 - Sugar Adds Up (n=500)		Survey 6 All Kid Teeth (n=751)		Survey 6 Urban Kid Teeth (n=594)		Survey 6 All Sugar Swap (n=751)		Survey 6 Urban Sugar Swap (n=594)		Survey 6 All Combined (n=751)		Survey 6 Urban Combined (n=594)	
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n		
...physical activity for children and families	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87.5	216	-	-												
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
PSA made respondent want to learn more about prevent/treat childhood obesity ^c			46.0	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-												

^aSurvey 1 (all):Denominator = 750, which includes 34 “don’t know/not sure” and 1 refusal. Survey 1 (urban): Denominator = 539, which includes 26 “don’t know/not sure” and 1 refusal Survey 2: Denominator = 500, includes 20 don’t know/not sure and 0 refused. Survey 3: Denominator = 500, includes 12 don’t know/not sure and 2 refused; Survey 4: Denominator = 501, includes 8 don’t know and 0 refused; Survey 5: Denominator = 500, includes 13 don’t know and 0 refused.

^bDenominator = 750/539 for survey 1, 500 for surveys 2, 3 & 5, and 501 for Survey 4.

^cDenominator includes only those who saw the PSAs, and excludes don’t know/not sure and refused.

^dTarget denominator for Active Family PSA = 442; target denominator for Animated PED PSA = 138; target denominator for Doughnut/Sugary Drink PSA = 213; target denominator for Role Model/Sugary Drink PSA = 183; target denominator for Ingredient List PSA = 129; target denominator for Kids Active PSA = 251; target denominator for Sugar Adds Up PSA = 185; target denominator for Kid Teeth PSA = XXX; target denominator for Sugar Swap PSA = XXX; each item excludes don’t know/not sure and refused which causes denominator to vary.

^eDenominator = 750 for survey 1, which includes 14 don’t know/not sure and 0 refusals; denominator = 501 for Survey 4, which includes 5 don’t know/not sure and 0 refusals.

^fDenominator = 285 for survey 1, which includes 1 don’t know/not sure and 0 refusals; denominator = 261 for Survey 4, which includes 1 don’t know/not sure and 0 refusals.

Table Appendix 1-3. Knowledge, Attitudes, Behaviors for Surveys 1, 2, 3, 4, and 5

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
KNOWLEDGE												
Knowledge – Sugary Drinks (% Agree) ^a												
Non-diet soda or pop such as Coca Cola, Pepsi, Mountain Dew, Sprite, and Dr. Pepper contain added sugars.	91.5	678	91.7	487	-	-	-	-	-	-	-	-
Sports drinks such as Gatorade and Powerade contain added sugars.	93.6	683	94.7	495	92.2	447	90.0	443	92.9	457	-	-
Non-diet Vitamin Water contains added sugars.	83.1	507	83.3	358	81.0	357	77.1	340	85.3	364	-	-
Non-diet fruit flavored or powdered drinks such as Sunny-D, Tang, Capri Sun, or Kool-Aid contain added sugars.	94.9	700	95.3	503	-	-	-	-	-	-	-	-
Sugary drinks are linked to tooth decay and cavities.	98.1	736	98.1	529	-	-	-	-	-	-	-	-
Sugary drinks are linked to diabetes, even in young children.	95.8	700	95.4	501	93.2	455	95.6	460	96.1	471	-	-
Sugary drinks are linked to weight gain and obesity in adults.	97.7	729	97.2	521	97.4	484	96.2	481	97.4	483	-	-
Sugary drinks are linked to weight gain and obesity in children.	-	-	-	-	97.2	482	95.8	479	97.0	483	-	-
Sugary drinks are linked to heart disease.	89.1	575	89.1	415	88.9	386	88.7	393	90.5	402	-	-
Young children should have no more than 4 teaspoons of added sugar each day.	91.6	642	92.4	464	-	-	-	-	-	-	-	-
Water or low-fat milk are the healthiest drink options for my family.	96.5	722	95.7	514	95.4	474	95.6	473	91.4	455	-	-
I know how to identify added sugars on the ingredient list of a drink.	97.8	724	98.1	522	96.4	481	96.8	481	98.0	489	-	-
If added sugars are named in the first three ingredients of a drink, that drink is high in sugar.	97.0	705	97.0	509	96.8	477	96.7	473	97.0	479	-	-
A 20-ounce bottle of non-diet soda has as much sugar as 16 chocolate mini donuts.	89.7	506	89.3	358	93.1	404	92.1	385	93.3	392	-	-
Knowledge – Physical Activity/Physical Education												
Have you heard any recommendations about the amount of physical activity or exercise a child or youth should get each day for good health?	90.5	679 ^b	91.1	491	-	-	-	-	-	-	85.6	428
How many days per week/minutes per day have you heard that a child or youth should be physically active?												
7 days/wk and 60-120 min/day ^d	32.1	241	38.1	183	-	-	-	-	-	-	39.1	164
1-2 days ^d	1.6	11	1.7	8	-	-	-	-	-	-	1.9	8
3-4 days ^d	12.5	84	14.0	68	-	-	-	-	-	-	10.2	43
5-6 days ^d	24.5	164	23.1	112	-	-	-	-	-	-	19.5	82

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
7 days ^d	61.3	411	61.2	297	-	-	-	-	-	-	68.4	288
1-29 min/day ^e	8.3	55	7.7	37	-	-	-	-	-	-	6.7	28
30-59 min/day ^e	35.2	233	35.8	171	-	-	-	-	-	-	39.9	167
60-120 min/day ^e	55.4	366	56.5	270	-	-	-	-	-	-	53.5	224
>120 min/day ^e	1.1	7	0.0	0	-	-	-	-	-	-	0.0	0
ATTITUDES												
Attitudes/Opinions – Sugary Drinks (% Agree) ^a												
It is important for me to set an example for my child by consuming fewer sugary drinks.	97.5	731	97.2	524	97.0	485	96.4	481	97.4	487	-	-
Attitudes/Opinions – Physical Education												
In your opinion, should elementary school students have physical education, or PE, in school?	98.8	741 ^b	98.9	533	-	-	-	-	-	-	-	-
In your opinion, out of a 5 day school week, how many days a week should elementary school students have PE? On those days, in your opinion, how many minutes of PE should elementary school students have?												
At least 150 minutes/week (combined days + minutes) ^c	71.3	535	71.8	387	-	-	-	-	-	-	-	-
1-2 days ^f	5.5	41	6.0	32	-	-	-	-	-	-	-	-
3 days ^f	23.8	176	24.2	129	-	-	-	-	-	-	-	-
4 days ^f	3.1	23	3.0	16	-	-	-	-	-	-	-	-
5 days ^f	67.6	500	66.8	356	-	-	-	-	-	-	-	-
1-29 min/day ^g	3.7	27	3.2	17	-	-	-	-	-	-	-	-
30-44 min/day ^g	45.7	336	44.2	234	-	-	-	-	-	-	-	-
45-59 min/day ^g	26.0	191	28.1	149	-	-	-	-	-	-	-	-
60+ min/day ^g	24.7	182	24.5	130	-	-	-	-	-	-	-	-
Attitudes/Opinions – Responsibility for Obesity (% A Lot/Some) ^a												
How much responsibility does government have in addressing the problem of obesity?	-	-	-	-	53.9	265	-	-	-	-	-	-

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
How much responsibility does the food industry have in addressing the problem of obesity?	-	-	-	-	75.0	372	-	-	-	-	-	-
How much responsibility do doctors have in addressing the problem of obesity?	-	-	-	-	75.6	374	-	-	-	-	-	-
How much responsibility do schools have in addressing the problem of obesity?	-	-	-	-	79.2	391	-	-	-	-	-	-
How much responsibility do parents have in addressing the problem of obesity?	-	-	-	-	98.8	493	-	-	-	-	-	-
How much responsibility do individuals have in addressing the problem of obesity?	-	-	-	-	92.2	450	-	-	-	-	-	-
Attitudes/Opinions –Should Schools Be Allowed to Sell... (% Yes) ^a												
Non-diet soda or pop	-	-	-	-	27.7	137	-	-	-	-	-	-
Non-diet sports drinks	-	-	-	-	49.6	244	-	-	-	-	-	-
Non-diet fruit-flavored drinks	-	-	-	-	47.3	231	-	-	-	-	-	-
Non-diet energy drinks	-	-	-	-	14.6	72	-	-	-	-	-	-
Candy, salty snacks, cookies, cakes	-	-	-	-	35.5	173	-	-	-	-	-	-
Attitudes/Harms of Sugary Drinks (% Strongly/Somewhat Agree)												
It is harmful to health if child drinks sugary drinks every day	-	-	-	-	-	-	-	-	-	-	91.8	459
It is harmful to health if child drinks sugary drinks 5-6 times/wk	-	-	-	-	-	-	-	-	-	-	90.2	451
It is harmful to health if child drinks sugary drinks 3-4 times/wk	-	-	-	-	-	-	-	-	-	-	81.0	405
It is harmful to health if child drinks sugary drinks 1 time/wk	-	-	-	-	-	-	-	-	-	-	40.8	204
It is harmful to health if child drinks sports drinks after sports	-	-	-	-	-	-	-	-	-	-	49.0	245
How many sugary drinks harmful per week or per day (no responses per month)												
None	-	-	-	-	-	-	-	-	-	-	3.5	17
Up to 1 per week	-	-	-	-	-	-	-	-	-	-	15.8	77
1 – 3 per week	-	-	-	-	-	-	-	-	-	-	25.3	123

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
4 – 6 per week	-	-	-	-	-	-	-	-	-	-	11.5	56
1 per day	-	-	-	-	-	-	-	-	-	-	24.9	121
More than 1 per day	-	-	-	-	-	-	-	-	-	-	18.9	92
BEHAVIORS												
Behaviors – Added Sugars, Sugary Drinks, Water, Milk (% Agree) ^a												
I make decisions about drinks I buy based on their ingredients	92.0	688	92.8	499	91.8	459	87.7	436	91.6	457	-	-
I limit the amount of drinks that I serve to my family that contain added sugars in the ingredient list.	95.9	717	96.1	516	98.2	488	97.4	486	97.2	487	-	-
During the past 7 days, how often did you provide (did you drink) non-diet <u>soda</u> like Coco-Cola or 7-UP to your child?												
Provide to Child												
None	62.6	466	62.2	322	64.3	321	68.9	341	67.9	337	67.5	335
1-2/wk	26.5	197	26.0	139	30.5	152	24.0	119	25.8	128	25.6	127
3-6/wk	5.0	37	5.2	28	2.6	13	2.6	13	3.6	18	3.0	15
1/day	3.8	28	4.3	23	2.0	10	3.6	18	2.0	10	2.4	12
>1/day	2.2	16	2.3	12	0.6	3	0.8	4	0.6	3	1.4	7
Adult consume												
None	63.2	470	65.0	349	62.5	311	64.1	320	67.0	335	59.4	297
1-2/wk	21.1	157	20.1	108	21.5	107	21.0	105	19.4	97	22.6	113
3-6/wk	6.5	48	6.0	32	8.2	41	5.6	28	6.8	34	8.0	40
1/day	5.9	44	5.6	30	4.6	23	5.8	29	5.0	25	6.6	33
>1/day	3.8	28	3.4	18	3.2	16	3.4	17	1.8	9	3.4	17
During the past 7 days, how often did you provide (did you drink) non-diet <u>fruit flavored or powdered drinks</u> like Sunny-D, Tang, Capri Sun, or Kool-Aid to your child? Do not include 100% fruit juice												
Provide to Child												

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
None	64.8	484	67.6	363	72.1	356	72.6	360	73.4	366	71.4	355
1-2/wk	21.3	159	16.2	87	14.4	71	11.5	57	13.0	65	12.9	63
3-6/wk	4.6	34	8.0	43	7.9	39	7.5	37	7.0	35	7.0	35
1/day	5.1	38	5.0	27	4.3	21	5.9	29	5.2	26	5.0	25
>1/day	4.3	32	3.2	17	1.4	7	2.6	13	1.4	7	3.8	19
Adult consume												
None	86.1	643	87.6	472	92.2	460	91.8	458	91.8	458	91.2	456
1-2/wk	8.4	6	8.7	47	4.2	21	4.2	21	4.2	21	3.2	16
3-6/wk	1.9	14	1.1	6	2.4	12	1.2	6	0.8	4	2.4	12
1/day	2.4	18	1.5	8	0.8	4	1.2	6	1.6	8	1.6	8
>1/day	1.6	12	1.1	6	0.4	2	1.6	8	1.6	8	1.6	8
During the past 7 days, how often did you provide (did you drink) non-diet sports drinks like Gatorade or Vitamin Water to your child?												
Provide to Child												
None	73.6	550	73.9	397	82.1	408	76.5	378	77.1	384	78.8	393
1-2/wk	17.9	134	17.7	95	12.5	62	15.8	78	17.1	85	13.2	66
3-6/wk	4.3	32	4.3	23	2.4	12	3.2	16	3.2	16	3.8	19
1/day	3.1	23	3.0	16	2.0	10	4.1	20	1.8	9	3.0	15
>1/day	1.1	8	1.1	6	1.0	5	0.4	2	0.8	4	1.2	6
Adult consume												
None	80.7	603	79.7	429	83.4	416	81.1	404	83.4	416	82.2	411
1-2/wk	11.4	85	11.5	62	9.4	47	10.6	53	9.8	49	11.4	57
3-6/wk	4.6	34	4.7	25	4.4	22	2.8	14	4.6	23	3.4	17
1/day	2.5	19	2.8	15	1.8	9	3.4	17	1.4	7	2.2	11

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
>1/day	1.1	8	1.3	7	1.0	5	2.0	10	0.8	4	0.8	4
During the past 7 days, how often did you provide (did you drink) non-diet <u>energy drinks</u> like Red Bull or Rock Star to your child?												
Provide to Child												
None	99.2	742	99.1	533	99.6	496	99.2	493	99.4	497	99.4	497
1-2/wk	0.3	2	0.4	2	0.2	1	0.2	1	0.4	2	0.0	0
3-6/wk	0.1	1	0.2	1	0.0	0	0.0	0	0.0	0	0.0	0
1/day	0.3	2	0.4	2	0.0	0	0.2	1	0.2	1	0.2	1
>1/day	0.1	1	0.0	0	0.2	1	0.4	2	0.0	0	0.4	2
Adult consume												
None	92.9	695	92.9	500	92.6	462	88.4	441	91.0	452	87.0	434
1-2/wk	3.5	26	3.2	17	3.8	19	6.0	30	4.8	24	6.0	30
3-6/wk	1.9	14	2.0	11	1.8	9	2.0	10	3.0	15	4.2	21
1/day	1.5	11	1.9	10	1.0	5	2.2	11	0.6	3	1.8	9
>1/day	0.4	3	0.0	0	0.8	4	1.4	7	0.6	3	1.0	5
During the past 7 days, how often did you provide (did you drink) non-diet <u>coffee drinks</u> like mochas or Frappuccinos to your child?												
Provide to Child												
None	97.2	728	96.8	521	96.6	482	96.6	481	96.6	483	95.8	479
1-2/wk	2.0	15	2.2	12	2.8	14	2.6	13	2.8	14	3.0	15
3-6/wk	0.0	0	0.0	0	0.4	2	0.2	1	0.2	1	0.4	2
1/day	0.7	5	0.7	4	0.2	1	0.2	1	0.4	2	0.4	2
>1/day	0.1	1	0.2	1	0.0	0	0.4	2	0.0	0	0.4	2
Adult consume												
None	63.6	476	63.0	339	57.6	288	65.7	328	64.7	322	56.4	281

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
1-2/wk	11.1	83	12.6	68	15.5	77	11.4	57	13.9	69	11.9	59
3-6/wk	6.3	47	6.1	33	6.8	34	3.8	19	6.4	32	6.4	32
1/day	13.8	103	13.8	74	12.7	63	12.0	60	9.6	48	16.7	83
>1/day	5.2	39	4.5	24	7.0	35	7.0	35	5.4	27	8.6	43
During the past 7 days, how often did you provide plain low- or non-fat <u>milk</u> to your child?												
None	12.2	91	11.4	61	12.0	60	17.4	87	15.2	76	19.4	97
<1/day	18.2	136	18.1	97	16.6	83	13.8	69	17.6	88	18.0	90
1/day	37.2	278	39.3	211	30.7	153	26.5	132	29.1	145	28.9	144
1-2/day	19.0	142	18.8	101	24.5	122	24.1	120	21.6	108	21.4	107
>2/day	13.4	100	12.5	67	16.2	81	18.2	91	16.4	82	12.2	61
During the past 7 days, how often did you provide <u>water</u> to your child?												
<2/day	29.7	219	28.9	153	21.2	104	16.6	82	18.8	94	17.6	87
2-4/day	27.4	202	25.7	136	32.2	158	30.9	153	32.0	160	36.6	181
4-6/day	23.3	172	23.8	126	25.9	127	29.5	146	30.2	151	28.1	139
6-8/day	11.0	81	11.5	61	11.2	55	12.1	60	10.4	52	9.3	46
8+/day	8.7	64	10.0	53	9.6	47	10.9	54	8.6	43	8.3	41
Sugary Drink Score: Total of all sugary drinks provided to a child in the past 7 days												
None	35.2	260	36.3	193	44.9	220	46.6	229	45.1	223	45.6	225
1-2/wk	28.7	212	28.8	153	29.6	145	21.8	107	28.7	142	24.5	121
3-6/wk	16.8	124	16.5	88	14.1	69	16.5	81	13.7	68	14.6	72
1/day	7.3	54	7.9	42	3.9	19	4.9	24	2.8	14	3.9	19
>1/day	12.0	89	10.5	56	7.6	37	10.2	50	9.7	48	11.4	56
Stages of Change: Limit sugary drinks												

	Survey 1 (n=750)		Survey 1 (n=539)		Survey 2 (n=500)		Survey 3 (n=500)		Survey 4 (n=501)		Survey 5 (n=500)	
	%	n	%	n	%	n	%	n	%	n	%	n
Do not intend to limit	-	-	-	-	-	-	-	-	-	-	2.4	12
Thinking about limiting in future	-	-	-	-	-	-	-	-	-	-	1.2	6
Thinking about limit within in next month	-	-	-	-	-	-	-	-	-	-	0.0	0
Recently been limiting	-	-	-	-	-	-	-	-	-	-	6.6	33
Have been limiting for 6+ months	-	-	-	-	-	-	-	-	-	-	70.2	351
Child does not drink sugary drinks	-	-	-	-	-	-	-	-	-	-	19.4	97
Behaviors – Physical Activity												
Child’s school participated in Healthy Futures Challenge - % yes ^h	55.5	416	57.7	311					53.9	270	53.8	269
Child participated in Healthy Futures Challenge - % yes ⁱ	83.8	341	81.4	250					86.3	221	84.2	219

^aExcludes don’t know/not sure, refused.

^bDenominator = full sample, includes don’t know/not sure and refusals.

^cDenominator = 750/539 (all/urban) survey 1 and 500 survey 5

^dAmong the 679/491 in survey 1 and 428 in survey 5 who had heard recommendations and were eligible to answer the question (because of the skip pattern in the survey), 670/478 (survey 1) and 419 (survey 5) responded (denominator); excludes 8/6 (survey 1) and 2 (survey 5) don’t know/not sure and 1/1 (survey 1) and 0 (survey 5) refusals.

^eAmong those who had heard recommendations, responded to number of days, and were eligible to answer the question.

^fAmong those who said elementary school students should have PE and were eligible to answer the question (because of the skip pattern in the survey).

^gAmong those who said elementary school students should have PE and were eligible to answer the question (because of the skip pattern in the survey).

^hDenominator = 750/539 in survey 1, includes 167/106 don’t know/not sure and 0 refusals; denominator = 501 in survey 4, includes 81 don’t know/not sure and 0 refusals denominator = 500 in survey 5, includes 102 don’t know/not sure and 0 refusals.

ⁱAmong the 416/311 in survey 1, 270 in survey 4, and 269 in survey 5 who said their child’s school participated in Healthy Futures; excludes don’t know/not sure and refused.

Appendix A

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Additional Summary

This report presents findings from six surveys conducted in June 2014, December 2014, February 2015, April 2015, November 2015, and December 2017 on recall and reaction to the PSAs, and on knowledge, attitudes, and behaviors about sugary drinks.

PSA Recall and Reaction

- There was a significant overall downward trend in recall of the general campaign and specific PSAs over time for both urban and rural survey respondents.
- The majority of respondents said that the PSAs made them want to get more active with their children, want to drink healthier beverages, want to buy fewer sugary drinks, want to drink fewer sugary drinks, and want to serve fewer sugary drinks to their children; however, about 20% - 40% of respondents said that the PSAs had an impact on their actual purchase or consumption of sugary drinks.
- Across the surveys, at least 70% of respondents said they would like to see more PSAs on the same topics. Respondents were particularly interested in seeing more PSAs about physical activity and families (survey 1, 85% and survey 5, 88%).
- Respondents who recalled the specific PSA in each survey period were significantly **more** likely to:
 - Know that sugary drinks are linked to obesity in adults (urban only)
 - Know that water or low fat milk are the healthiest options (urban only)
 - Provide soda to their child (urban only)
 - Provide fruit drinks to their child (urban and rural)
 - Provide sports drinks to their child (urban and rural)
 - Provide milk to their child (urban only)
 - Provide any sugary drink to their child (urban and rural)
 - Consume soda (urban only)
 - Consume fruit drinks (rural only)
 - Consume sports drinks (urban only)
- Respondents who recalled the specific PSA in each survey period were significantly **less** likely to:
 - Know sugary drinks are linked to liver disease (urban only)
 - Know sugary drinks are linked to cancer (rural only)
 - Provide water to their child (rural only)
- Significantly higher proportions of respondents who recalled the specific and general PSAs were:

- Non-white (Active Family PSA, Animated PSA, Ingredient List PSA, Tooth Decay + Switch Up PSAs, Play Every Day campaign)
- Of lower educational attainment (Doughnut Sugary Drink PSA, Tooth Decay + Switch Up PSAs, Play Every Day campaign)
- Gulf Coast residents (Tooth Decay + Switch Up PSAs, Play Every Day campaign)
- Female (Ingredient List PSA)

Sugary Drink Behaviors

- From survey 1 to survey 6 there was:
 - a significant *decrease* in the proportion of respondents who said they:
 - provided fruit drinks to their child (urban only)
 - provided sports drinks to their child (urban only)
 - provided milk to their child (urban only)
 - provided any sugary drink to their child (urban and rural)
 - consumed fruit drinks (urban only)
 - consumed sports drinks (urban only).
 - a significant *increase* in the proportion of respondents who said they:
 - provided water to their child (urban and rural)
 - Consumed energy drinks (urban only).
- Significantly larger proportions of survey respondents who recalled the Ingredient List and Switch Up PSAs and provided one or more sugary drinks to their child per day (heavy providers) were more likely than moderate providers (1-6 per week) to say that the PSA made them want to serve fewer sugary drinks to their child (Switch UP only) and drink fewer sugary drinks because of the PSA (both PSAs).

Knowledge about Sugary Drinks

- Over time (from survey 1 to 6, excluding survey 5) there was:
 - a significant *increase* in knowledge about:
 - sugary drinks linked to diabetes (urban only)
 - sugary drinks linked to heart disease (urban and rural)
 - a 20 oz. bottle of soda has as much sugary as 16 doughnuts (urban only)

Attitudes about Sugary Drinks

- Among the 204 (41%) respondents in survey 5 who agreed it is harmful to their child's health to drink a sugary drink 1 time per week, more than one third of them served at least one sugary drink to their child in the prior week.

Introduction

In 2012, the Alaska Obesity Prevention and Control Program (OPCP) launched the Play Every Day campaign to increase public awareness about the risks of childhood obesity and the importance of physical activity to prevent and reduce childhood obesity. The Play Every Day campaign consisted of several flights of public service announcements (PSA) that aired from 2012 to 2017. Campaign media included T.V., radio, online, print, out of home, and social media. The campaign targeted parents of children ages 5 to 12 because they have influence over nutrition and the physical activity environments of their children.

In late 2014 and early 2015, the Play Every Day campaign turned its focus to sugar and sugary drinks by airing T.V. PSAs about the sugar content in sugary drinks because focus groups in Alaska revealed that parents underestimate the exposure to and health effects of sugar.¹ The PSAs compared the amount of sugar in a 20-ounce bottle of soda to the amount of sugar in 16 chocolate mini doughnuts, reinforced the importance of parents serving as role models for their children by reducing sugary drink consumption, educated parents about how to identify added sugars on an ingredient list, highlighted how added sugars add up throughout the day, educated parents about the impact of sugary drinks on tooth decay, and identified how to switch sugary foods and beverages for healthier ones. The PSAs also provided information about how sugary drinks can lead to health problems such as obesity and diabetes.

This report presents findings from the surveys conducted in June 2014, December 2014, February 2015, April 2015, November 2015, and December 2017. The media evaluation assesses recall and reaction to T.V. PSAs across time, as well as compares baseline (June 2014) survey responses on knowledge, attitudes, and behaviors about sugary drinks to responses on subsequent surveys in order to determine the overall effectiveness of the campaign.

¹ http://dhss.alaska.gov/dph/PlayEveryDay/Documents/2013_PEDSugaryDrinkFocusGroups_Results.pdf

Methods

Overview

In June 2014, OPCP contracted with Hays Research Group to conduct a statewide survey of 750 Alaska parents' knowledge, attitudes, and behaviors regarding sugary drinks, along with asking questions related to PSA-specific recall and reaction to Play Every Day television PSAs that aired February-May 2014. In December 2014, Hays Research Group conducted a second survey of 500 Alaska parents who resided in the urban areas of Anchorage/Mat-Su, Fairbanks, and Southeast. The second survey repeated questions about knowledge, attitudes, and behaviors regarding sugary drinks, as well as included additional questions for PSA recall and reaction to the Doughnut/Sugary Drink PSA that aired November and December 2014. A third survey of 500 urban-area Alaska parents was conducted in February 2015 that included the same questions about knowledge, attitudes, and behaviors regarding sugary drinks, in addition to recall and reaction questions about the Role Model/Sugary Drink PSA that aired January-February 2015. This survey also asked about recall of the Doughnut/Sugary Drink PSA that had aired in late 2014. The fourth survey of 501 urban-area Alaska parents was conducted in April 2015. It included the same questions about knowledge, attitudes, and behaviors regarding sugary drinks, as well as recall and reaction questions about the Ingredient List PSA that aired March-April 2015, and asked about recall of the Doughnut/Sugary Drink PSA from late 2014. The fifth survey of 500 urban-area Alaska parents was conducted in November 2015. This survey also included questions about knowledge, attitudes, and behaviors regarding sugary drinks, as well as recall and reaction questions about the Children Being Active and Sugar Adds Up PSAs that aired October-November 2015. In December 2017, Hays Research Group conducted another statewide survey of 750 Alaska parents. Again, the survey included questions about knowledge, attitudes, and behaviors about sugary drinks, as well as questions related to PSA-specific recall and reaction to the Tooth Decay and Switch Up PSAs that aired October-December 2017. Table 1 provides a brief description of each PSA in the Play Every Day campaign.

Table 1. Description of Play Every Day (PED) Campaign

PSA Name	PSA Description	T.V. Gross Rating Points (GRP) ^a	Dates PSAs Aired	Survey Timing
Active Family	A mom talks about how her family finds ways to make physical activity a priority. The family is shown doing various activities like walking, running, playing soccer and football, and going for a bike ride.	3,735 GRPs over two quarters 1,556 in Anchorage and Fairbanks, 633 in Juneau during the two quarters	February – May 2014	#1 June 2014
Animated PED	Viewers are asked to look within the body of an overweight child and see the impact on the heart, lungs, and blood. You are also told that weight-related diseases like heart disease, diabetes and asthma begin in childhood.	1,120 GRPs over one quarter 467 in Anchorage and Fairbanks, 186 in Juneau GRPs over one quarter	Late April – May 2014	#1 June 2014
Doughnut/Sugary Drink	A male voice compares the amount of sugar in a 20-ounce bottle of soda to the amount of sugar in 16 chocolate mini doughnuts. He talks about how sugary drinks can lead to health problems such as tooth decay, obesity and diabetes.	1,588 GRPs over one quarter 618 in Anchorage and Fairbanks, 352 in Juneau GRPs over one quarter	November – December 2014	#2 December 2014
Role Model/Sugary Drink	A mother and daughter are in the bedroom getting ready for their day, in the kitchen cleaning dishes, and on the couch reading together. The mother talks about realizing how her habit of	1,888 GRPs over one quarter 462 in Anchorage, 1,022 in Fairbanks, 404 in	January – February 2015	#3 February 2015

PSA Name	PSA Description	T.V. Gross Rating Points (GRP) ^a	Dates PSAs Aired	Survey Timing
	drinking sugary beverages affects her health and also her daughter's health.	Juneau GRPs over one quarter		
Ingredient List	A father and his children are shopping at a grocery store. The dad says he tries to make healthy choices for his family, but what's sold at the stores is so confusing. He shows his children how to check the back of the bottle for the ingredient list.	1,791 GRPs over one quarter 687 in Anchorage and Fairbanks, 416 in Juneau GRPs over one quarter	March – April 2015	#4 April 2015
Children Being Active	Children are shown being active in different ways. Children ride bikes. A girl does tumbling. A boy does the Alaska-Native high kick. Several children do Alaska Native dancing. Other kids run, play soccer, and splash in puddles.	1,172 GRPs over one quarter 493 in Anchorage and Fairbanks, 186 in Juneau GRPs over one quarter	October – November 2015	#5 November 2015
Sugar Adds UP	A young boy drinks different sugary beverages during his day. He starts with a sweetened powdered drink at breakfast, a fruit-flavored drink at lunch, a sports drink for a snack, and a soda for dinner. A split screen shows that sugar adding up to 38 teaspoons of sugar by the end of the day. All these sugary drinks add up to weight gain, type 2 diabetes and tooth decay.	1,172 GRPs over one quarter 493 in Anchorage and Fairbanks, 186 in Juneau GRPs over one quarter	October – November 2015	#5 November 2015
Tooth Decay	A boy ages over time in this PSA, drinking different sugary beverages as he gets older. He starts with a bottle of fruit punch, moves to a sippy cup of a sweetened powdered mix, then a fruit	2,605 GRPs over one quarter	October – December 2017	# 6 December 2017

PSA Name	PSA Description	T.V. Gross Rating Points (GRP) ^a	Dates PSAs Aired	Survey Timing
	drink punch, and finally a sports drink. Year after year, the effects of all that sugar add up. Sugary drinks can lead to type 2 diabetes and destroy children’s teeth.	708 in Anchorage and Fairbanks, 1,188 in Juneau GRPs over one quarter		
Switch Up	A mother switches out the sweet cereal at breakfast for a healthier morning meal. The mother then switches out a sweetened granola bar in the lunchbox for an apple. The PSA ens with the mother switching from pouring a fruit punch for her daughter to pouring a glass of water at dinner. The message ends by saying one sugary drink often has more added sugar than your child should have in one day.	2,605 GRPs over one quarter 708 in Anchorage and Fairbanks, 1,188 in Juneau GRPs over one quarter	October – December 2017	# 6 December 2017

^a A GRP is a measure in marketing to determine the target audience’s exposure to a message. GRPs take into account the reach and frequency of the message.

Sample

The sampling strategy used a list sample procedure to survey Alaska adults with at least one child between the ages of 5 and 12. Survey 1 sampled adults in five regions throughout Alaska (Anchorage/Mat-Su, Fairbanks, Southeast, Gulf Coast, and rural); surveys 2 through 5 sampled adults only in the three urban areas (Anchorage/Mat-Su, Fairbanks, and Southeast) where the sugary drink PSAs aired; survey 6 sampled adults in the same geographic regions as in survey 1. The survey data collection procedure for surveys 1 and 6 was designed to obtain 750 completed surveys with 20% completed on cell phones and 80% completed on landlines for survey 1 and 30% completed on cell phones and 70% completed on landlines for survey 6. The data collection procedure for surveys 2 through 5 was designed to obtain 500 completed surveys, with 20% completed on cell phones and 80% completed on landlines.

Survey Calling Procedures

Survey calling procedures were identical for all surveys. Final disposition was determined after at least 3 calling occasions, each consisting of no more than 3 attempts at least one hour apart, for a minimum of 9 call attempts, with times varying between day, evening, and weekend. Call attempts were made over about one week, and the final disposition code was determined at the end of this period. A maximum of two voicemail messages per potential participant were allowed. Cooperation rates (calculated as the proportion of completed surveys among completed surveys plus refusals) ranged.

Measures

Campaign Recall and Reaction

Recall - Survey 1: Active Family PSA and Animated PED PSA

The recall section of survey 1 asked about two sets of T.V. PSAs: (1) Active Family – “A mom talks about how her family finds ways to make physical activity a priority. The family is shown doing various activities like walking, running, playing soccer and football, and going for a bike ride;” and (2) Animated PED – “In this ad, you are asked to look within the body of an overweight child and see the impact on the heart, lungs, and blood. You are also told that weight-related diseases like heart disease, diabetes and asthma begin in childhood.”

Respondents were first asked a general recall question: “Thinking about the last 90 days, have you seen any ads on T.V. about getting kids to play every day?” Respondents who answered “yes” were then asked more specifically, “Thinking about the last 90 days, have you seen any ads on T.V. about a family being physically active together?” or “Thinking about the last 60 days, have you seen an animated ad on T.V. about the health effects of being an overweight child?” If the respondent answered “yes,” the interviewer then asked what they remembered about the PSA. Respondents who answered “no” to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

Recall - Survey 2: Doughnut/Sugary Drink PSA

The recall section of survey 2 asked about a T.V. ad about soda and its sugar equivalence to that of mini doughnuts: “In this ad, a male voice compares the amount of sugar in a 20-ounce bottle of soda to the amount of sugar in 16 chocolate mini doughnuts. He talks about how sugary drinks can lead to health problems such as tooth decay, obesity and diabetes. The ad shows a boy sitting at a table with doughnuts dropping down from above onto an empty plate. A glass of soda overflows onto the table.”

Respondents were first asked a general recall question: “Thinking about the last 60 days, have you seen any ads on T.V. about Play Every Day?” (Note: the wording for the general recall question in survey 1 was slightly different: “Thinking about the last 90 days, have you seen any ads on T.V. about getting kids to play every day?”). Respondents who answered “yes” were then asked more specifically, “Thinking about the last 60 days, have you seen any ads that feature a child, a soda and sugary treats?” If the respondent answered “yes,” the interviewer then asked what they remembered about the PSA. Respondents who answered “no” to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

Recall - Survey 3: Role Model/Sugary Drink PSA

The recall section of survey 3 asked about a T.V. ad about soda and a parent's responsibility to act as a role model for his/her children with regard to purchase and consumption of sugary drinks. "In this ad, a mother and daughter are seen together at home. They are in the bedroom getting ready for their day, in the kitchen cleaning dishes, and on the couch reading together. While sitting on the couch, the mother drinks a soda while the daughter drinks a fruit-flavored drink out of a pouch. The mother talks about realizing how her habit of drinking sugary beverages affects her health and also her daughter's health. She says 'It starts with me' and she decides to stop buying sugary drinks for her family."

Respondents were first asked a general recall question: "Thinking about the last 60 days, have you seen any ads on T.V. about Play Every Day?" (Note: the wording for this question on survey 3 was identical to that of survey 2; however, the wording for the general recall question in survey 1 was slightly different: "Thinking about the last 90 days, have you seen any ads on T.V. about getting kids to play every day?"). Respondents were then asked more specifically, "Thinking about the last 60 days, have you seen any ads that feature a mother and a daughter drinking sugary beverages at home?" If the respondent answered "yes," the interviewer then asked what they remembered about the PSA. Respondents who answered "no" to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

Recall - Survey 4: Ingredient List PSA

The recall section of survey 4 asked about a T.V. ad about the ingredient list on the nutrition facts label for sugary drinks. "In this ad, a father and his children are shopping at a grocery store. The dad says he tries to make healthy choices for his family, but what's sold at the stores is so confusing. His kids pick up sugary drinks, including sports drinks, powdered drinks and vitamin-enhanced drinks. These drinks have labels that say 'hydrating,' 'loaded with vitamins,' and 'all natural flavors.' He kneels down and shows his children how to check the back of the bottle for the ingredient list. If sweeteners are listed as one of the first three ingredients, the drink is loaded with sugar. The dad says his family will have water or low-fat milk for the best health."

Respondents were first asked a general recall question: "Thinking about the last 60 days, have you seen any ads on T.V. about Play Every Day? (Note: the wording for this question on survey 4 was identical to that of survey 2 and survey 3; however, the wording for the general recall question in survey 1 was slightly different: "Thinking about the last 90 days, have you seen any ads on T.V. about getting kids to play every day?"). Respondents were then asked more specifically, "Thinking about the last 60 days, have you seen any ads that feature a father and his children shopping for drinks at a store?" If the respondent answered "yes," the interviewer then asked what they remembered about the PSA. Respondents who answered "no" to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

Recall - Survey 5: Children Being Active PSA and Sugar Adds Up PSA

The recall section of survey 5 asked about two sets of T.V. PSAs: (1) Children Being Active – “Children are shown being physically active in different ways. Children ride bikes. A girl claps her chalk-covered hands in the gym and does tumbling. A boy does the Alaska-Native high kick, and several children do Alaska Native dancing. Other kids run, play soccer, and splash in puddles. A visually-impaired child walks with her cane and gets kissed by a dog. Another child sit-skis down a mountain.” (2) Sugar Adds Up – “A boy sits down to the dinner table with his family. He pours himself a glass of soda. The narrator says, “It’s just one soda with dinner. What’s the harm?” The ad then flashes back during the boy’s day, showing him drink a powdered drink for breakfast, a fruit-flavored drink for lunch, and a sports drink on the baseball field. The narrator says that all of these sugary drinks can add up to weight gain, diabetes and tooth decay.”

Respondents were first asked a general recall question: “Thinking about the last 90 days, have you seen any ads on T.V. about Play Every Day?” Respondents who answered “yes” were then asked more specifically, “Thinking about the last 90 days, have you seen any ads on T.V. about Alaska children having fun being physically active or playing?” or “Thinking about the last 60 days, have you seen an ad on T.V. that shows a boy drinking several different sugary beverages during the day?” If the respondent answered “yes,” the interviewer then asked what they remembered about the PSA. Respondents who answered “no” to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

Recall - Survey 6: Tooth Decay PSA and Switch Up PSA

The recall section of survey 6 asked about two sets of T.V. PSAs: (1) Tooth Decay – “A mom pours a sugary drink into a bottle and then hands it to her young son. She then hands a sippy cup, a sugary drink pouch, and a sports drink to her children. A child pricks his finger to check his blood sugar for diabetes. A close-up photograph of healthy white teeth changes to a close-up photograph of black, decayed teeth.” (2) Switch Up – “A mother carries a plate of food from the kitchen. She sets it down in front of her daughter, and you watch a bowl of sugary cereal being removed from the screen to reveal a healthier plate filled with eggs, toast and oranges. Then a lunch box that includes a sweetened granola bar is removed from the screen, revealing a lunch box with an apple instead. Finally, the mother is seen pouring a red sugary drink into her child’s glass, but then the sugary drink switches to water being poured into the glass. A group of sugary drinks fall over, and pitchers of water and milk are left standing.”

Respondents were first asked a general recall question: “Thinking about the last 90 days, have you seen any ads on T.V. about Play Every Day?” Respondents who answered “yes” were then asked more specifically, “Thinking about the last 90 days, have you seen any ads on T.V. about how serving sugary drinks to children can harm their teeth?” or “Thinking about the last 90 days, have you seen an ad on T.V. about a mother switching from serving sugary foods and drinks to healthier options?” If the respondent answered “yes,” the interviewer then asked what they remembered about the PSA. Respondents who answered “no” to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

Campaign Reaction

For all surveys, respondents who either correctly identified a specific element of the PSA (unaided recall) or who recalled the PSA once it was described by the interviewer (aided recall) were considered to have recalled the PSA, and were then asked a series of reaction questions. Specifically:

Shared ads with family and friends

1. Have you talked about or shared these ads with friends, family or co-workers? (surveys 1 - 6)

Ads gave new information or perspective

2. Would you say this ad gave you new information or perspective? (survey 1)
3. Would you say this ad gave you new information or perspective about the amount of sugar in sugary drinks? (survey 2)
4. Would you say this ad gave you new information or perspective about the health problems linked to sugary drinks? (surveys 2, 3)
5. Would you say this ad gave you new information or perspective about the influence parents have on their children's beverage choices? (surveys 3, 4)
6. Would you say this ad gave you new information or perspective about how to find added sugars in drinks? (survey 4)
7. Would you say this ad gave you new information or perspective about the importance of daily physical activity for children? (survey 5)
8. Would you say this ad gave you new information or perspective about how sugary drinks add up during the day? (survey 5)
9. Would you say this ad gave you new information or perspective about what types of drinks contain added sugar? (survey 5)
10. Would you say this ad gave you new information or perspective about the health risks of drinking sugary beverages? (survey 5)
11. Would you say this ad gave you new information or perspective about the impact of sugary drinks on teeth? (survey 6)
12. Would you say this ad gave you new information or perspective on switching sugary drinks for healthier ones? (survey 6)

Intentions

13. Did these ads/this ad make you want to get your child more physically active? (survey 1)
14. Did these ads/this ad make you want to be more physically active with your child? (survey 1)
15. Did this ad make you want to learn more about how to prevent or treat childhood obesity? (survey 1)
16. Did this ad make you want to figure out the sugar content in your beverages before you drink them? (surveys 2, 3, 4)
17. Did this ad make you want to drink healthier beverages, such as water or low-fat milk? (surveys 2, 3, 4, 5)
18. Did this ad make you want to buy fewer sugary drinks for your family? (surveys 3, 4)
19. Did this ad make you want to drink fewer sugary drinks? (surveys 2, 3, 4, 5)

20. Did this ad make you want to serve fewer sugary drinks to your child? (surveys 2, 3, 4, 5, 6)

21. Did this ad make you want to help your child be more physically active? (survey 5)

22. Did this ad make you want to be more physically active? (survey 5)

Behaviors

23. Did you or your child do any physical activity because of these ads/this ad? (survey 1)

24. Did you check the ingredient list before buying drinks for your family because of this ad? (survey 4)

25. Did you buy fewer sugary drinks for your family because of this ad? (surveys 2, 3)

26. Did you or your child drink fewer sugary drinks because of this ad? (surveys 2, 3, 4, 5, 6)

27. Did you or your child drink more water or low-fat milk because of this ad? (surveys 2, 3, 4, 5, 6)

28. Did you or your child do any physical activity because of this ad? (survey 5)

Main message of ad

29. What do you think was the main message of this ad? Responses were open ended and coded into the following categories (surveys 1-4):

- a. Survey 1: Play Every Day PSAs: a) inspire your kids to play every day; b) childhood obesity is a public health problem; c) kids eat too much junk food (ads). Childhood obesity PSA: d) overweight children face health risks during childhood; e) drinking sugary drinks are linked to obesity; f) kids need less “screen time.”
- b. Survey 2: a) there is a lot of sugar hidden in some drinks; b) too much sugar can lead to health problems (examples: obesity, diabetes, tooth decay); c) don’t let your children drink or eat too much sugar; d) choose healthier drinks like water or milk; e) there’s as much sugar in a bottle of soda as there is in mini doughnuts; f) other.
- c. Survey 3: a) parents are role models when it comes to what types of drinks are consumed by the family; b) too much sugar can lead to health problems (examples: obesity, diabetes, tooth decay); c) don’t let your children drink or eat too much sugar; d) choose healthier drinks like water or milk; e) stop buying sugary drinks for your family; and f) other.
- d. Survey 4: a) check the back of the bottle to find the sugars on the ingredient list; b) too much sugar can lead to health problems (examples: obesity, diabetes, tooth decay); c) if sugar is listed in the first three ingredients, the drink is loaded with sugar; d) drink or buy water or milk; e) buying drinks at the store is confusing because drinks are labeled with words like “loaded with vitamins,” “hydrating,” and “all-natural flavors;” f) dads/moms/parents know what is best for their children and buy water or low-fat milk; and g) other.

Like to see more ads

30. Would you like to see more ads about ways families can be active together? (survey 1)
31. Would you like to see more ads about the health risks of childhood obesity? (survey 1)
32. Would you like to see more ads that provide information about sugary drinks? (surveys 2, 3, 4, 5)
33. Would you like to see more ads promoting physical activity for children and families? (survey 5)
34. Would you like to see more ads about on the health impacts of sugary drink consumption? (survey 6)
35. Would you like to see more ads about ways families can switch to healthier drinks? (survey 6)

Surveys 3 and 4 also asked about the Doughnut/Sugary Drink PSA that had been broadcast on T.V. several months prior to the survey period. The reference period was changed from the past 60 days to the past 100 days (survey 3) or to the past 6 months (survey 4): “Thinking about the last 100 days/last 6 months, have you seen any ads on T.V. that feature a child, soda, and sugary treats?” Again, if the respondent answered “yes,” the interviewer then asked what they remembered about the PSA. Respondents who answered “no” to the initial recall question, or who could not remember a specific element of the PSA, were asked an aided recall question that described specific elements of the spot and then asked whether or not they recalled the PSA.

At baseline, and again after the broadcast of the PSAs, two additional questions were asked about the Play Every Day website:

1. Have you heard of the website “PlayEveryDay.Alaska.gov?” (surveys 1, 4)
2. Have you visited the PlayEveryDay.Alaska.gov website? (surveys 1, 4)

General Recall

Respondents who responded “yes” they had seen any PSAs on T.V. about Play Every Day were considered to have general recall of the Play Every Day campaign.

PSA-Specific Recall

Respondents who either correctly identified a specific element of the specific T.V. PSA (unaided recall), or who recalled the T.V. PSA once it was described by the interviewer (aided recall) were considered to have PSA-specific recall of the Play Every Day campaign.

Knowledge

Respondents were asked a series of questions to assess their knowledge about added sugars in drinks, the health-related harms of added sugars, identification of added sugars in product ingredient lists, sugar equivalency between sugary drinks and sugary food items, and for survey 1 only, physical activity recommendations for children. Respondents were

asked if they agreed or disagreed with the following statements. If a respondent indicated they agreed with a statement, he or she was then asked if they strongly or somewhat agreed. Although the option was not read by the interviewer, responses of “don’t know” were retained and coded separately for all questions.

Added Sugars Questions

1. Non-diet soda or pop such as Coca Cola, Pepsi, Mountain Dew, Sprite, and Dr. Pepper contain added sugars. (surveys 1, 6)
2. Sports drinks such as Gatorade and Powerade contain added sugars. (surveys 1, 2, 3, 4, 6)
3. Non-diet Vitamin Water contains added sugars. (surveys 1, 2, 3, 4, 6)
4. Non-diet energy drinks such as Rockstar, Redbull, Monster, and Amp contain added sugars (survey 6)
5. Non-diet fruit flavored or powdered drinks such as Sunny-D, Tang, Capri Sun, or Kool-Aid contain added sugars. (surveys 1, 6)
6. Sugary drinks are linked to tooth decay and cavities. (surveys 1, 6)
7. Sugary drinks are linked to diabetes, even in young children. (surveys 1, 2, 3, 4, 6)
8. Sugary drinks are linked to weight gain and obesity in adults. (surveys 1, 2, 3, 4)
9. Sugary drinks are linked to weight gain and obesity in children. (surveys 2, 3, 4, 6)
10. Sugary drinks are linked to heart disease. (surveys 1, 2, 3, 4, 6)
11. Young children should have no more than 4 teaspoons of added sugar each day. (survey 1)
12. Water or low-fat milk are the healthiest drink options for my family. (surveys 1, 2, 3, 4, 6)
13. I know how to identify added sugars on the ingredient list of a drink. (surveys 1, 2, 3, 4)
14. If added sugars are named in the first three ingredients of a drink, that drink is high in sugar. (surveys 1, 2, 3, 4)
15. A 20-ounce bottle of non-diet soda has as much sugar as 16 chocolate mini donuts. (surveys 1, 2, 3, 4, 6)

Physical Activity Questions

16. Have you heard any recommendations about the amount of physical activity or exercise a child or youth should get each day for good health? (surveys 1, 5)
17. How many days per week/minutes per day have you heard that a child or youth should be physically active? (surveys 1, 5)

Attitudes/Beliefs

Respondents were asked several questions to assess their attitudes/beliefs related to sugary drinks and physical education in elementary school. An additional set of questions about obesity-related policies was asked in survey 2.

1. It is important for me to set an example for my child by consuming fewer sugary drinks. (surveys 1, 2, 3, 4)
2. In your opinion, should elementary school students have physical education, or PE, in school? (survey 1)
3. In your opinion, out of a 5 day school week, how many days a week should elementary school students have PE? (survey 1)
4. On those days, in your opinion, how many minutes of PE should elementary school students have? (survey 1)
5. How much responsibility does/do (INSERT ITEM) have in addressing the problem of obesity in the United States – A lot of responsibility, some responsibility, not much responsibility, or no responsibility at all? Items included government, food industry, doctors and other health care providers, schools, individuals, and parents. (survey 2)
6. Should schools be allowed to sell (INSERT ITEM) on campus? Items included non-diet soda or pop, non-diet sports drinks, non-diet fruit-flavored drinks, non-diet energy drinks, candy, salty snacks, cookies, or cakes. (survey 2)

Behaviors

Respondents were asked a series of questions to assess consumption of sugary drinks by their children or themselves, as well as behaviors related to purchasing and limiting access to sugary drinks at home.

1. I make decisions about drinks I buy based on their ingredients. (agree or disagree) (surveys 1, 2, 3, 4)
2. I limit the amount of drinks that I serve to my family that contain added sugars in the ingredient list. (agree or disagree) (surveys 1, 2, 3, 4)
3. Now I'd like to ask you some questions about sugary drinks at mealtimes, including packed lunches, or outside of meals. First I'd like to ask you about what your child (you) drinks....During the past 7 days, how often did you provide (did you drink) non-diet soda like Coco-Cola or 7-UP to your child? (surveys 1-6)
4.During the past 7 days, how often did you provide (did you drink) non-diet fruit flavored or powdered drinks like Sunny-D, Tang, Capri Sun, or Kool-Aid to your child? Do not include 100% fruit juice. (surveys 1-6)
5.During the past 7 days, how often did you provide (did you drink) non-diet sports drinks like Gatorade or Vitamin Water to your child? (surveys 1-6)
6.During the past 7 days, how often did you provide (did you drink) non-diet energy drinks like Red Bull or Rock Star to your child? (surveys 1-6)
7.During the past 7 days, how often did you provide (did you drink) non-diet coffee drinks like mochas or Frappuccinos to your child? (surveys 1-6)
8.During the past 7 days, how often did you provide plain low- or non-fat milk to your child? (surveys 1-6)
9.During the past 7 days, how often did you provide water to your child? (surveys 1-6)

Participation in the Healthy Futures Challenge

10. Did your child's school participate in the Healthy Futures Challenge this past school year? (surveys 1, 4, 5)
11. Did your child participate in the Healthy Futures Challenge this past school year? (surveys 1, 4, 5)

Demographic characteristics

The survey assessed the demographic characteristics of each respondent. For analyses, we examined region (Anchorage, Mat-Su, Fairbanks, Southeast); race (non-Hispanic White, Alaska Native-American Indian (ANAI) – any mention, and Other – includes multiple races/ethnicities but not ANAI); gender (male, female); age (20-29,30-39,40-49,50+ and continuous); household income (\$0-\$19,999, \$20,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000+, and above or below 185% of poverty guidelines for Alaska²); education (high school/GED or less, some college or technical school, college graduate +); and phone type (landline, cell).

Analysis

Descriptive Analyses

We analyzed frequencies and conducted two-way analyses with chi-square tests of campaign recall, and knowledge, attitudes, and behaviors (KAB) about sugary drinks by demographic characteristics. For each question, responses of “don’t know/not sure,” and refusals were coded as missing; therefore, the denominator for each question varied depending on the number of responses other than “don’t know/not sure,” refusals, and skip patterns in the survey. There were several exceptions. We included respondents who answered “don’t know/not sure” or refused in the denominator for (1) heard about physical activity recommendation for children/youth (surveys 1, 5), (2) knowledge about physical activity recommendation (e.g., 7 days/week and 60-120 minutes/day) (surveys 1, 5), (3) opinion that PE should be provided in elementary school (survey 1), (4) opinion that PE should be at least 150 minutes per week (survey 1), (5) child’s school participates in Healthy Futures (surveys 1, 4, 5), and (6) heard about the Play Every Day website (surveys 1, 4). Thus, for these items, the denominator was the full sample of 750 in survey 1, 501 in survey 4, and 500 in survey 5. We also included “don’t know/not sure” respondents and refusals in the general and specific ad recall questions for all surveys.

Comparison of Surveys Across Time

We stratified trend analyses by urban and rural respondents. We performed a series of chi-square tests in two-by-two tables for each survey item that was repeated across all surveys. The dependent variable was the dichotomous response to each survey item. The independent variable was survey administration. For analysis of specific PSA recall, we

² The poverty guidelines, issued each year in the Federal Register by the Department of Health and Human Services (HHS), are a simplified version of the federal poverty thresholds and are used to determine financial eligibility for federal programs. The Alaska-specific guideline totals are used to create a cut-point of household incomes at or below the 185% poverty guideline for this report because this percent corresponds with eligibility criteria for the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and some parts of Medicaid.

chose the Active Family PSA from survey 1 (aided + unaided), the Doughnut/Sugary Drink PSA in survey 2 (aided + unaided), the Role Model/Sugary Drink PSA in survey 3 (aided + unaided), and the Ingredient List PSA in survey 4 (aided + unaided), the Children Being Active PSA in survey 5 (aided + unaided), and Tooth Decay and Switch Up PSAs (combined as either or both) in survey 6 (aided + unaided) as the target PSA in each period. We also conducted an analysis of the linear trend using logistic regression. This analysis produced unadjusted ORs with 95% CIs. An OR < 1.0 indicated a downward trend; an OR > 1.0 indicated an upward trend.

All analyses were performed with unweighted data. All statistical tests were considered significant at the $\alpha = 0.05$ level.