

*Talk. Read. Sing.*  
Campaign Evaluation  
(Selected Slides)



June 2021

Prepared by



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# Evaluation Goal and Key Questions

## Evaluation Goal

Evaluate the effectiveness of the First 5 California *Talk. Read. Sing.* campaign with respect to awareness, importance, attitudes, and behaviors among California parents and caregivers of children ages 0-5.

## Key Evaluation Questions

- To what extent do parents and caregivers perceive campaign advertisements to be effective?
- To what extent is campaign awareness associated with uptake of behaviors and behavioral precursors (e.g., obtaining books, music, or information online) to talk, read, or sing with a 0-5-year-old child?
- What are the differences in campaign awareness and outcomes among different segments of interest?
- What are the main campaign outcomes after controlling for key covariates (e.g., demographics, household composition, and experience with parenting classes)?

# Methodology

- 873 completed online surveys (April 14 - May 7, 2021)
  - **California regions:** Los Angeles (47.9%), San Francisco (12.9%), Sacramento (14.5%), San Diego (8.6%), and rest of state (16.0%)
  - **Devices:** Phone (65.7%), Desktop (32.8%), and Tablet (1.5%)
  - 95 (10.9%) Spanish language-dominant participants
  - 454 (52.0%) completed ACEs questionnaire
- Inclusion Criteria
  - Age 18 or older
  - Annual household income of \$75,000 or less
  - Full-time or part-time parent or caregiver/guardian of a child 0-5 years old
  - Is not a trained child educator (e.g., teacher) or a cognitive, developmental, or educational professional

# Survey Instrument Overview

Screeners items and demographics

Unaided awareness of campaign

Talk, read, and sing behaviors

Talk, read, and sing importance and attitudes

Aided awareness of campaign, effectiveness of campaign ads and level of campaign exposure

Respondent classification

Adverse childhood experiences (ACEs) scale

# Sample Characteristics

# Participant Characteristics (N = 873)

Age		Race/ethnicity		Gender		ACEs total score (N = 454)	
	n (%)		n (%)		n (%)		n (%)
18-30	386 (44.2)	White	336 (38.5)	Female	636 (72.9)	3 or lower	320 (70.5)
31-40	413 (47.3)	Hispanic/Latinx	300 (34.4)	Male	232 (26.6)	4 or higher	134 (29.5)
41-50	46 (5.3)	Black/African-American	40 (4.6)	Other	5 (0.5)		
51+	28 (3.2)	Asian/Pacific Islander	77 (8.8)				
		Mixed race	99 (11.3)				
		Other	21 (2.4)				

“Other” includes transgender male/trans man; gender non-binary, gender non-conforming; and prefer not to state.

# Participant Characteristics (N = 873)

## Highest education level

	n (%)
Less than high school (HS), HS degree or GED	232 (26.8)
Some college or trade school	234 (27.1)
Associate degree (2 y) or college degree (4 y)	315 (36.4)
Graduate work or graduate degree	84 (9.7)

## Household income

	n (%)
Up to \$25,000	206 (23.6)
\$25,001-\$45,000	264 (30.2)
\$45,001-\$75,000	400 (45.8)
\$75,001-\$85,000	3 (0.4)

## Employment status

	n (%)
Employed	521 (59.7)
Homemaker	166 (19.0)
Not employed	186 (21.3)

“Employed” includes employed full-time or part-time, and self-employed.

“Unemployed” includes full-time student; on temporary or permanent disability; unemployed; retired; and other.

“Prefer not to answer” (n = 8) not included.



# Participant Characteristics (N = 873)

## Relationship to child

	n (%)
Parent	846 (96.9)
Caregiver	27 (3.1)

## Child gender

	n (%)
Female	431 (49.4)
Male	441 (50.5)

Gender non-binary, gender non-conforming (n = 1) not included.

## Child age

	n (%)
0-11 months	185 (21.1)
1 year old	174 (20.0)
2 years old	140 (16.0)
3 years old	138 (15.9)
4 years old	134 (15.3)
5 years old	102 (11.7)

## Number of children cared for

	n (%)
<b>Ages 0-5</b>	
1	621 (71.1)
2	215 (24.6)
3 or more	37 (4.3)
<b>Ages 6 or older</b>	
0 (none)	475 (54.4)
1	257 (29.4)
2 or more	141 (16.2)

# Effectiveness of Campaign Advertisements

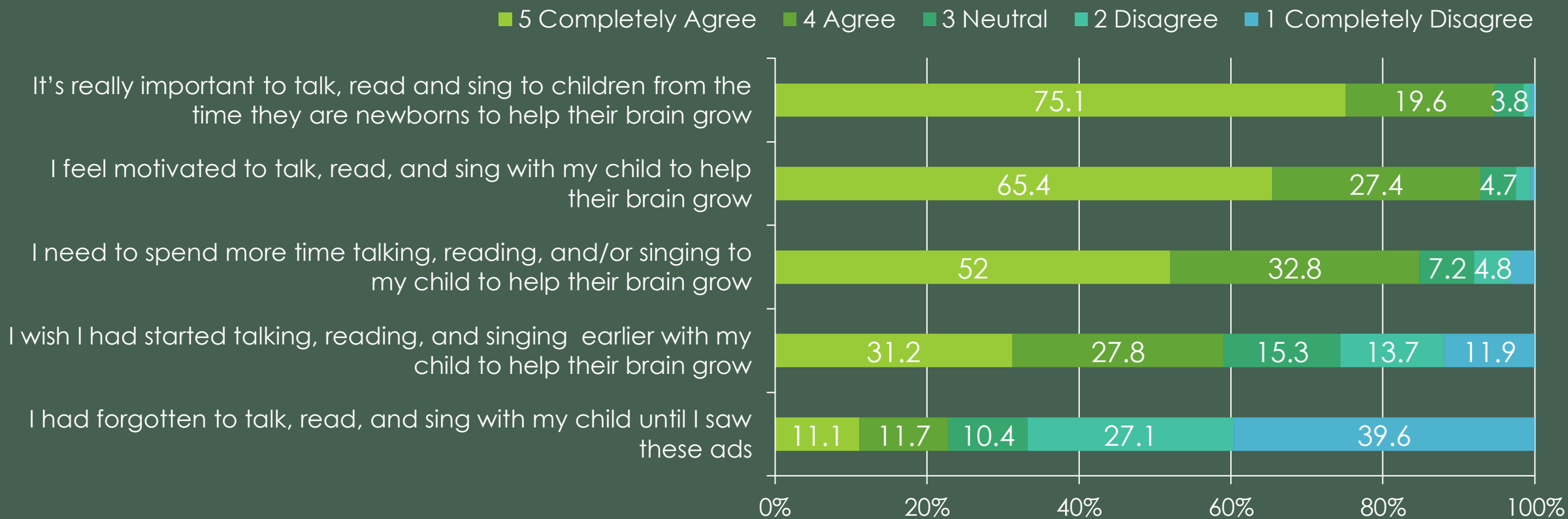
# Effectiveness Ratings (N = 873)

## Ad A: Give The Phone A Rest



- ✓ **Two video ads were shown, and both were highly rated on key dimensions of effectiveness (importance of behavior and motivation)**

After viewing this ad, rate how much you agree with these statements.



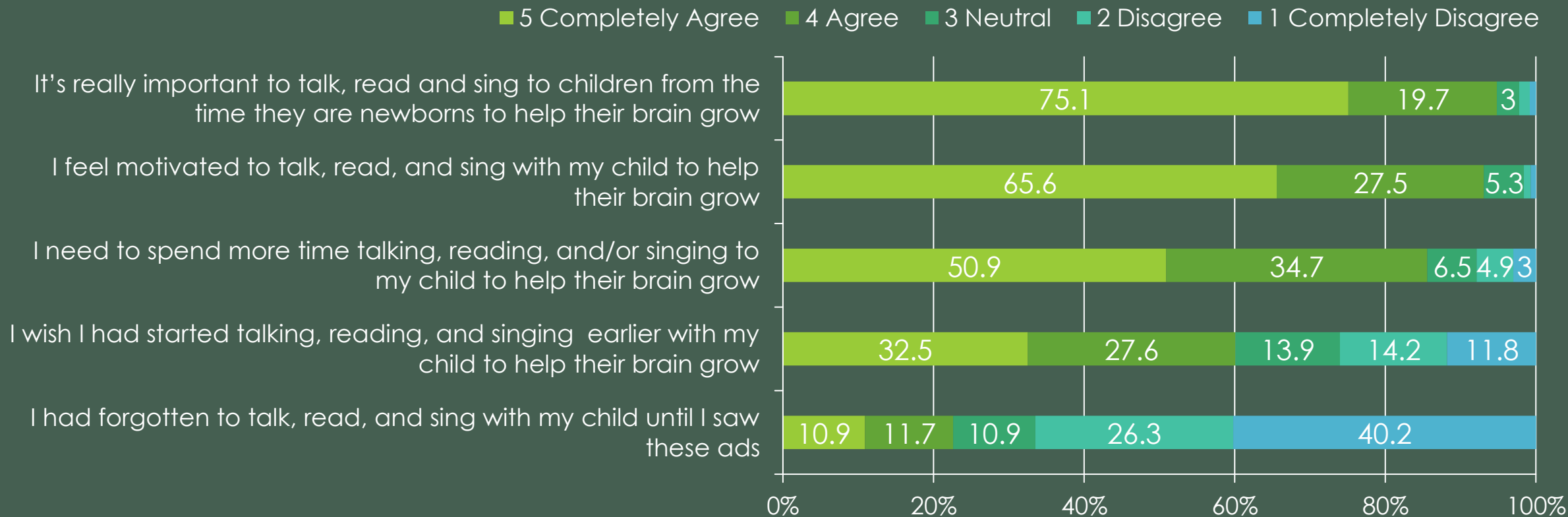
# Effectiveness Ratings (N = 873)

## Ad B: Grandma



- ✓ **Two video ads were shown, and both were highly rated on key dimensions of effectiveness (importance of behavior and motivation)**

After viewing this ad, rate how much you agree with these statements.



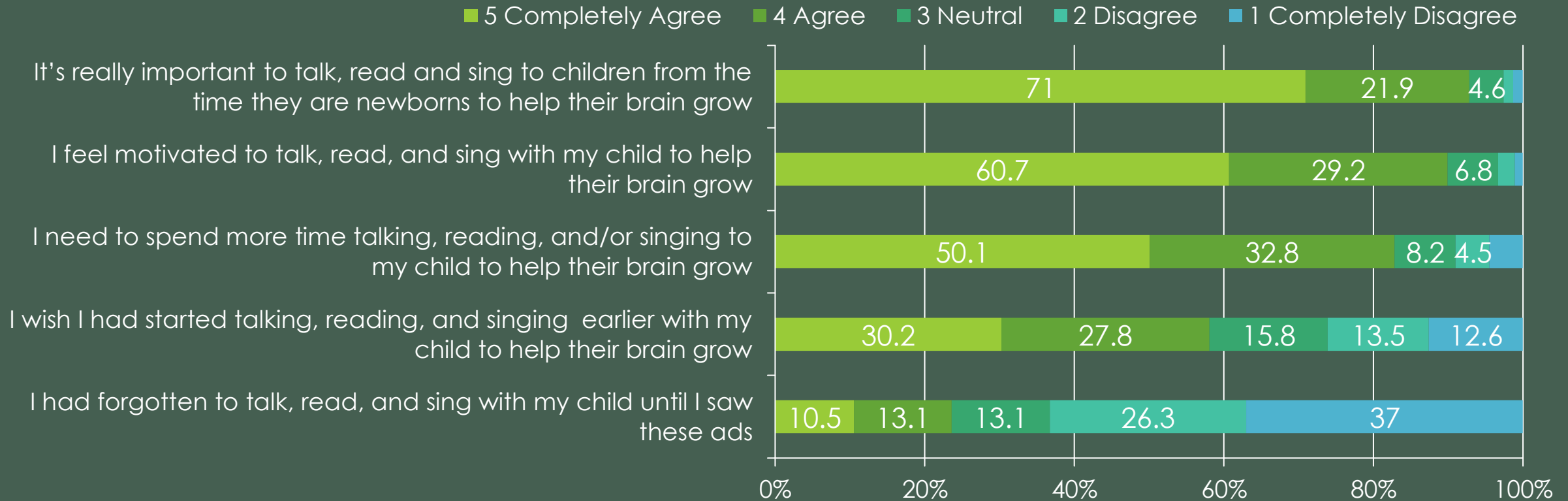
# Effectiveness Ratings (N = 873)

## 15-Second Radio Spot



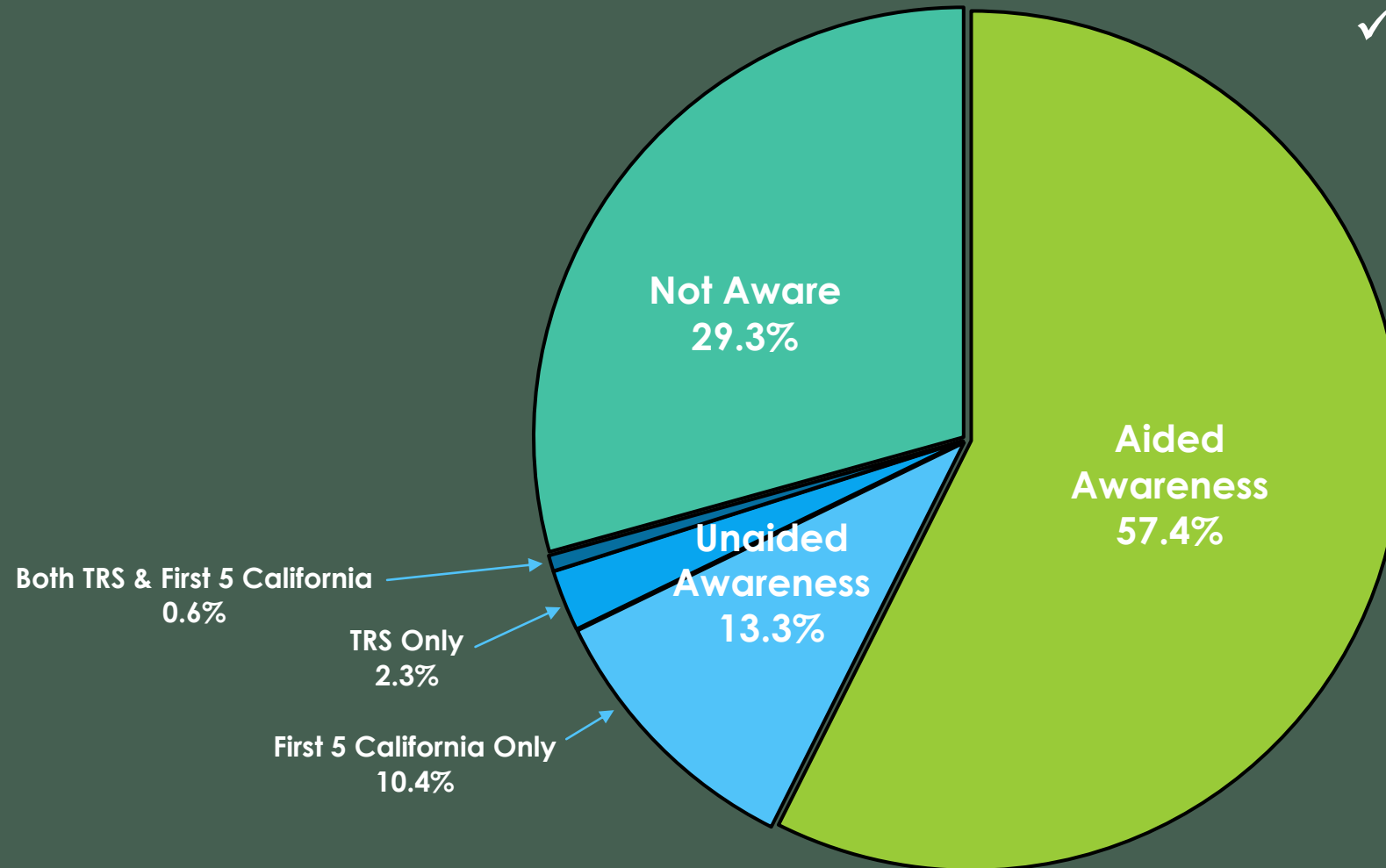
- ✓ **Radio ad was also highly rated on key dimensions of effectiveness (importance of behavior and motivation)**
- ✓ **All three ads prompted people to engage in more TRS behaviors.**

After viewing this ad, rate how much you agree with these statements.



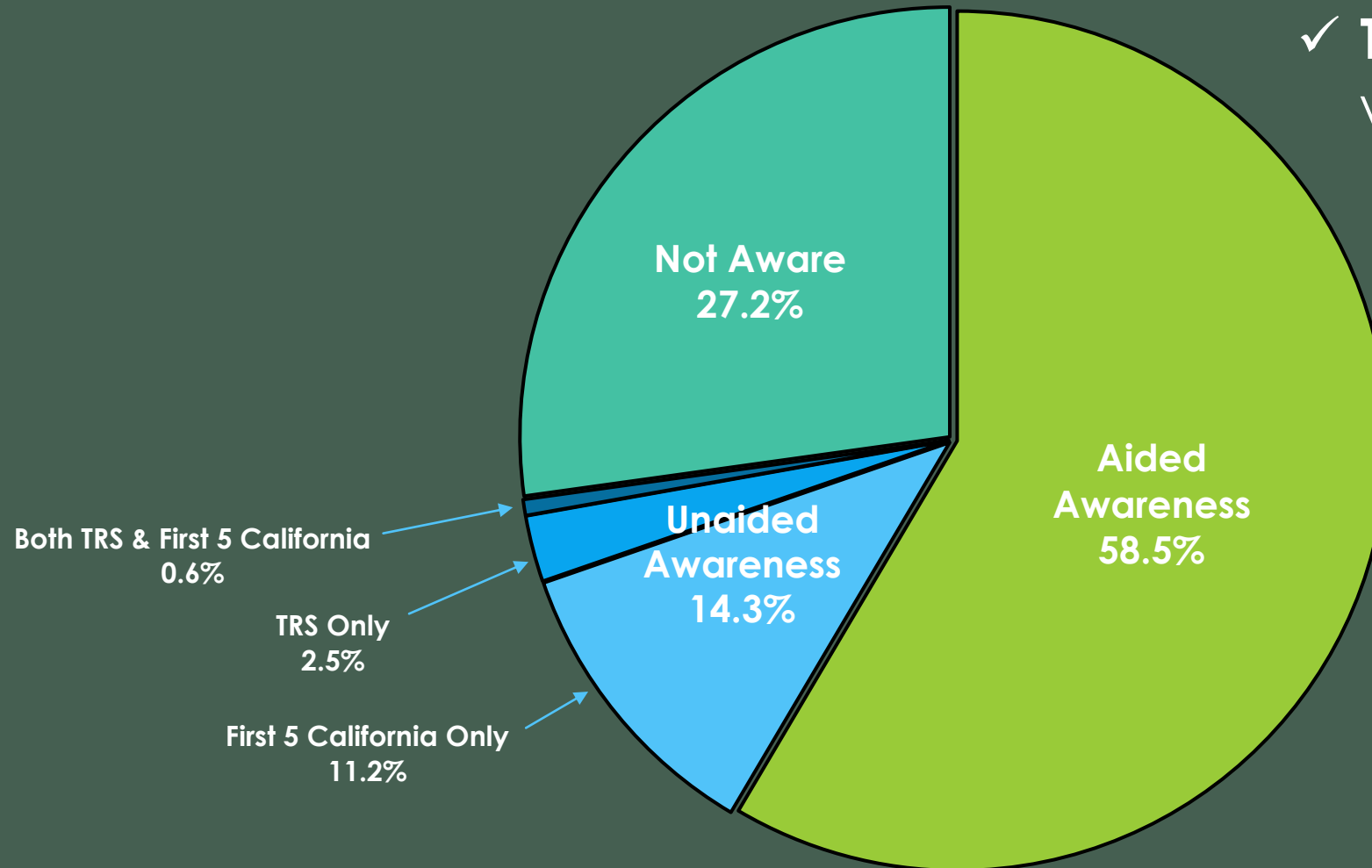
# Campaign Awareness

# Talk. Read. Sing. (TRS) Campaign / First 5 California Awareness (N = 873)



✓ **Total awareness: 70.7%** with San Diego, where campaign was not placed.

# Talk. Read. Sing. (TRS) Campaign / First 5 California Awareness, **without San Diego** (N = 798)

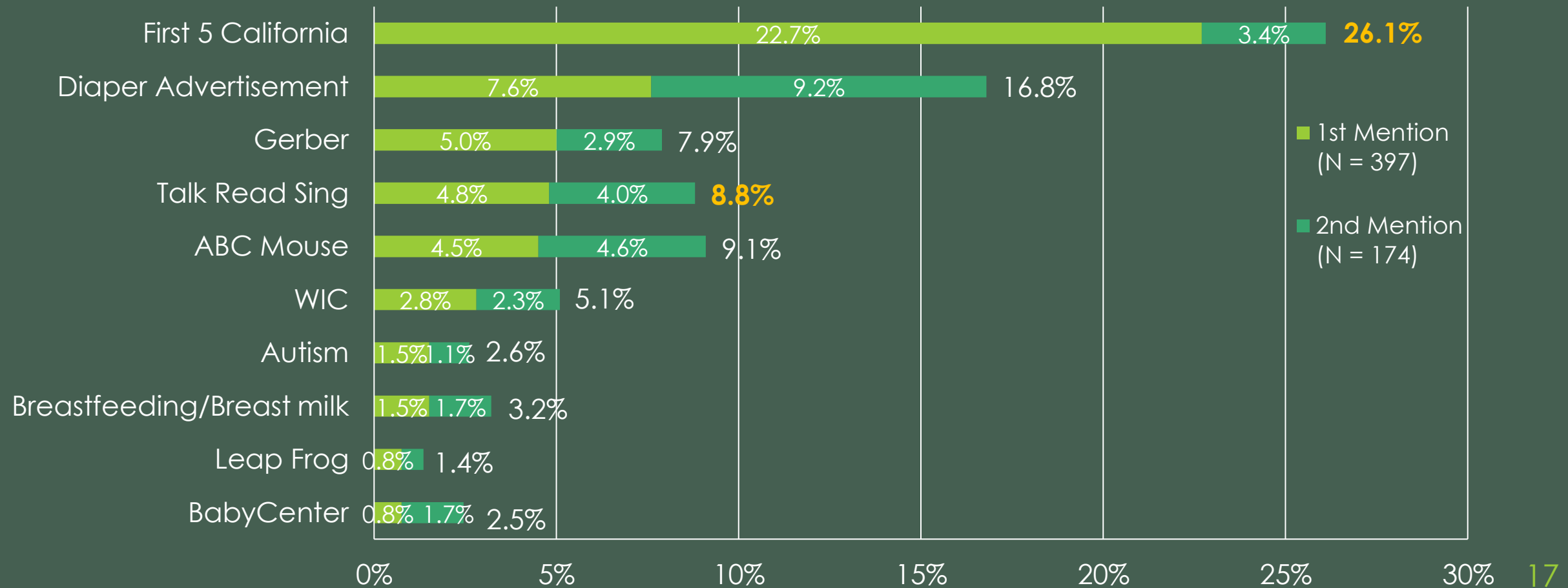


✓ **Total awareness: 72.8%**  
without San Diego.



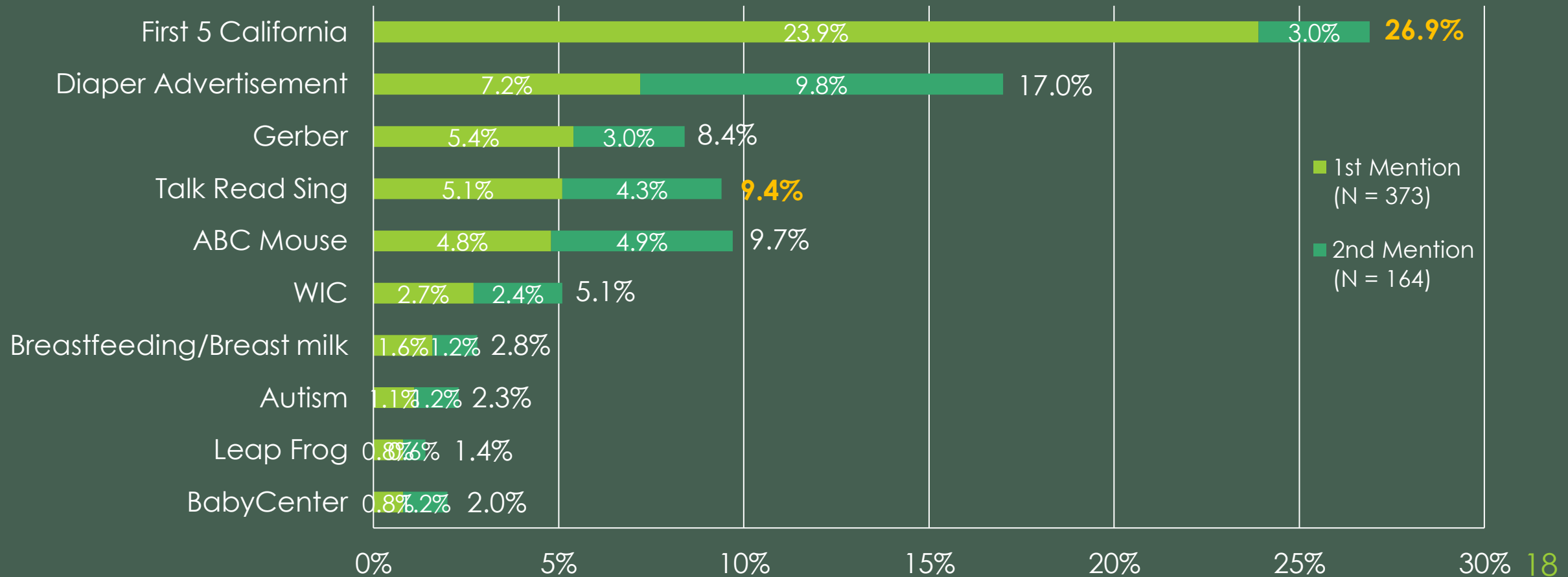
# Top Mentions of Unaided Awareness Among Those Who Recalled Ads in the Past 12 Months

Please describe the name of the advertisement, publicity, events, or marketing (about learning and development issues for babies and young children) that you recall from the last 12 months.



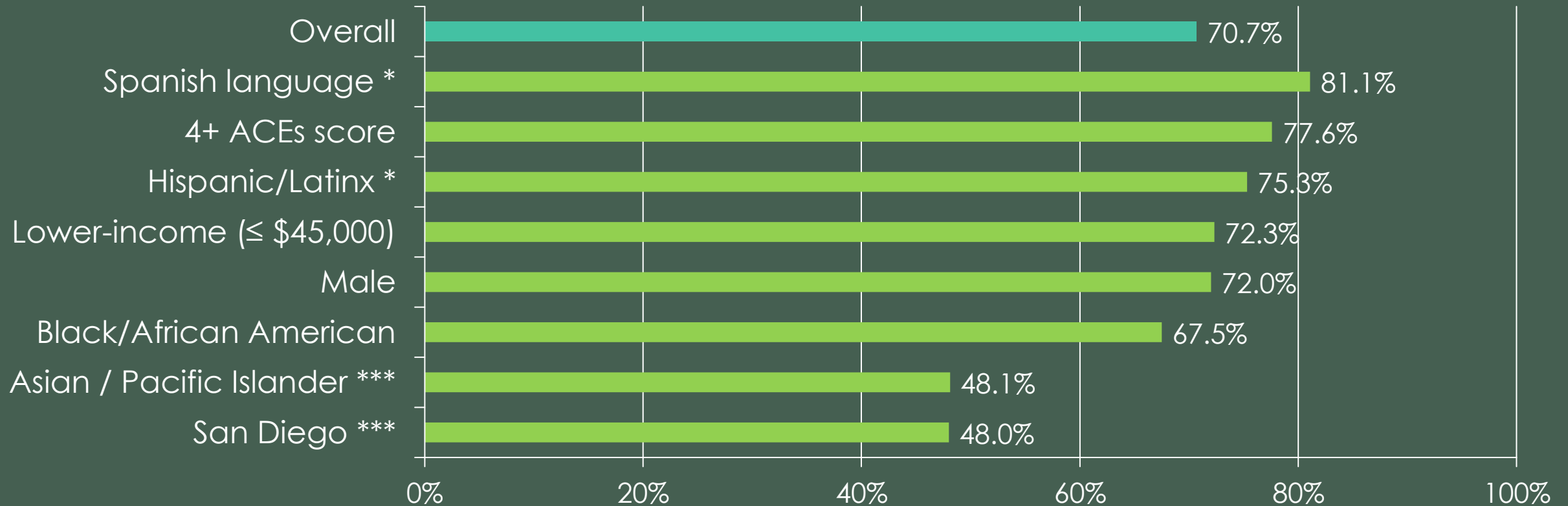
# Top Mentions of Unaided Awareness Among Those Who Recalled Ads in the Past 12 Months, **without San Diego**

Please describe the name of the advertisement, publicity, events, or marketing (about learning and development issues for babies and young children) that you recall from the last 12 months.



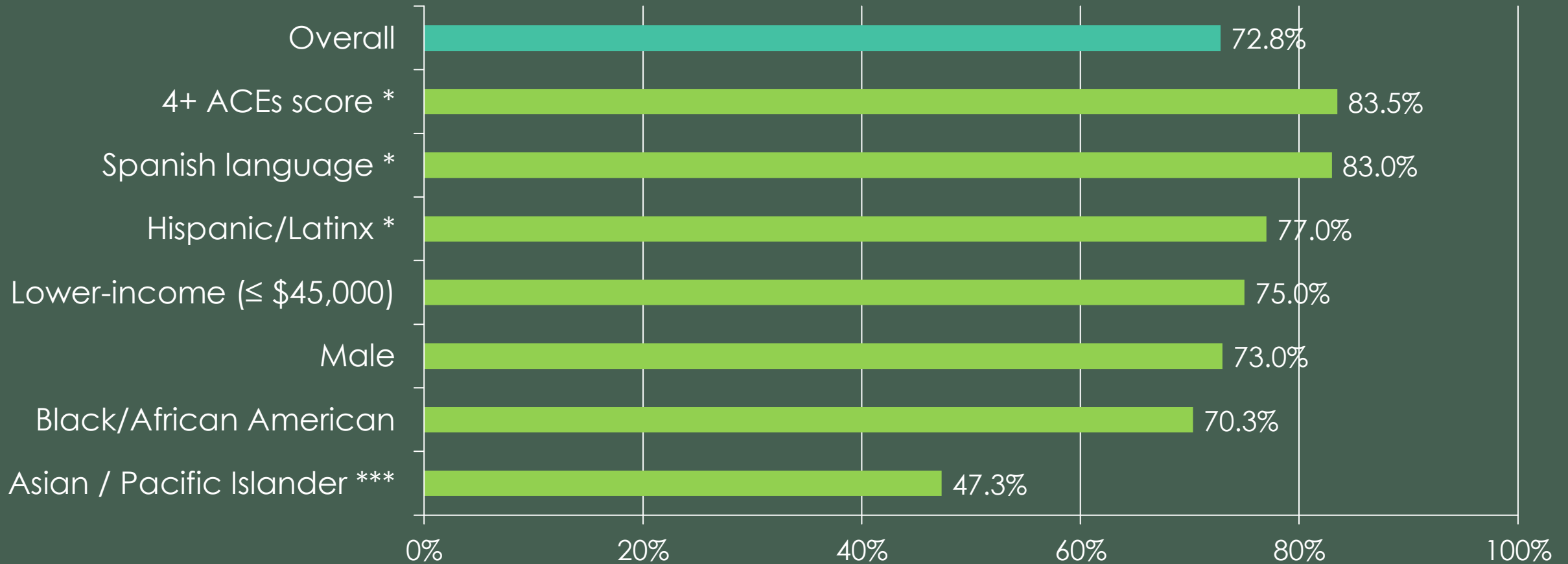
# Total Awareness by Segments of Interest (N = 873)

✓ Campaign awareness was high across all segments except API and San Diego.



\*  $p \leq .05$ ; Latinx ( $X^2(1)=4.78, p = .029$ ) and Spanish-speaking participants ( $X^2(1)=5.54, p = .019$ ) have significantly greater awareness than non-Latinx and English-speaking participants. \*\*\*  $p \leq .001$ ; Asian/PI and San Diego residents have lower awareness than non-Asian/PI residents ( $X^2(1) = 20.86, p = .000$ ) and non-San Diego residents ( $X^2(1) = 19.76, p = .000$ ).

# Total Awareness by Segments of Interest, without San Diego (N = 798)



\*  $p \leq .05$ ; Latinx ( $X^2(1) = 3.78, p = .052$ ), Spanish-speaking ( $X^2(1) = 5.14, p = .023$ ), and 4+ ACEs score ( $X^2(1) = 5.06, p = .024$ ) residents have significantly greater awareness than non-Latinx, English-speaking, and 0-3 ACEs score residents. \*\*\*  $p \leq .001$ ; Asian/PI residents have lower awareness than non-Asian/PI residents ( $X^2(1) = 26.81, p = .000$ ).

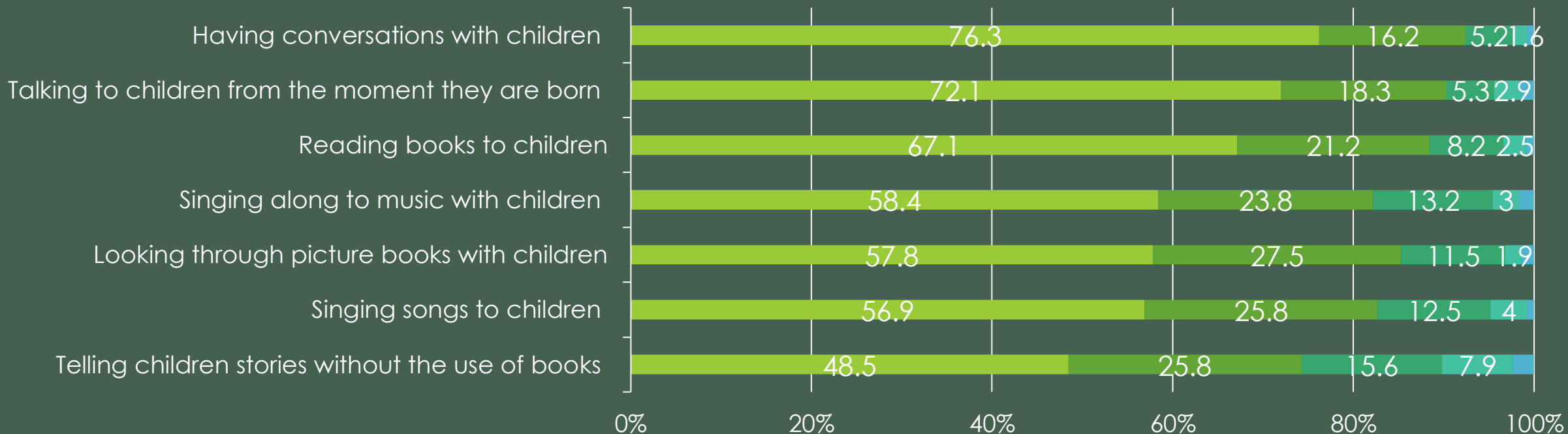
# Talk, Read, and Sing Importance and Attitudes

# Importance of TRS with a Child 0-5 Years Old (N = 873)

- ✓ A majority know the importance of TRS behaviors, but those with more exposure are more likely to see the importance, suggesting that campaign exposure reminds them of these TRS behaviors.
- ✓ No difference in this finding across racial/ethnic groups.

How important do you believe the following activities are for helping a child's brain grow stronger?

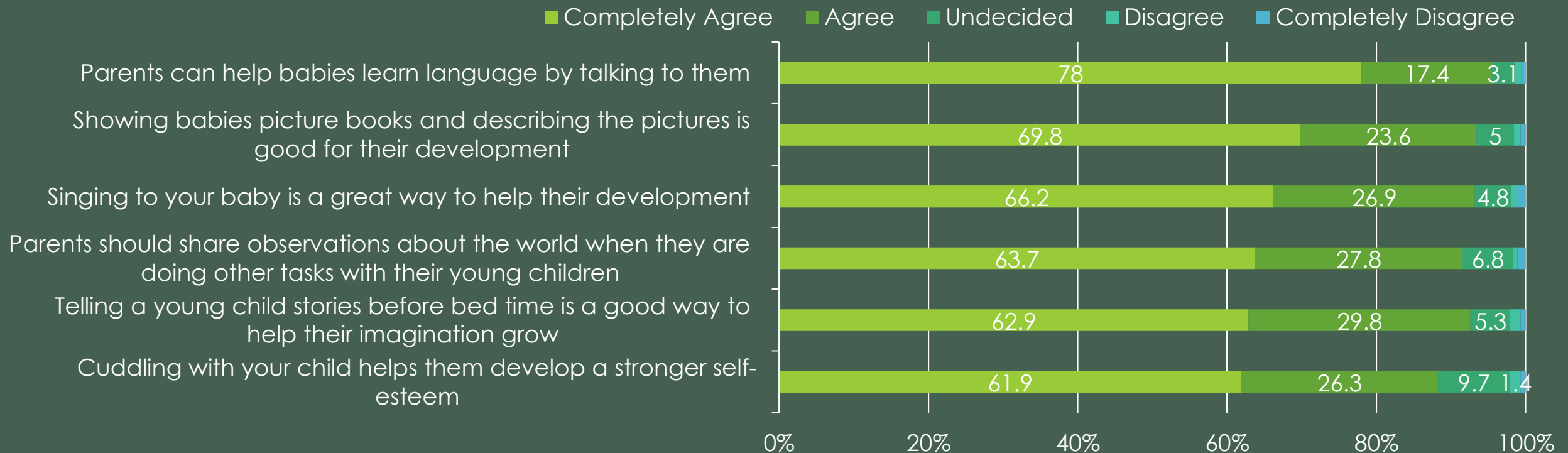
■ Extremely important ■ Very important ■ Important ■ Somewhat important ■ Not at all important



# Agreement with Benefit Statements About TRS with a Child 0-5 Years Old (N = 873)

- ✓ A majority agreed with TRS benefits, and those with more exposure to the campaign were in greater agreement with these benefit statements.
- ✓ No difference in this finding across racial/ethnic groups.

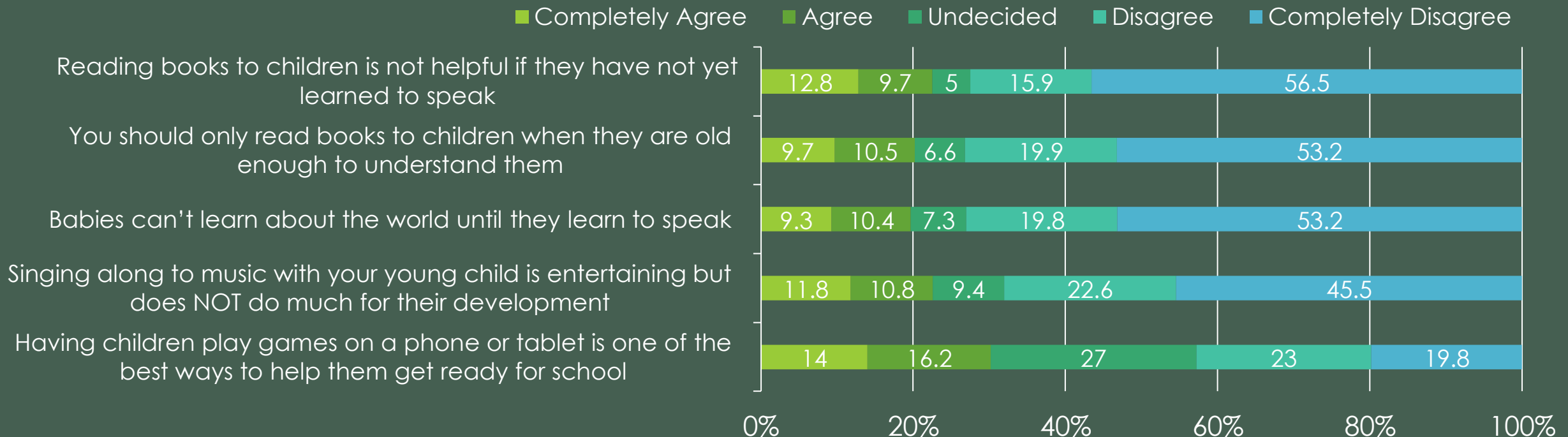
How much do you agree with the following statements about children from newborn to age 5?



# Agreement with False Beliefs About TRS with a Child 0-5 Years Old (N = 873)

- ✓ While most people understand the importance of TRS with younger children/infants, there are about 2 in 10 that need targeted messaging to help them understand the importance of these behaviors and debunk false beliefs.
- ✓ Male and lower-income segments tend to have higher agreement with false beliefs about TRS.

How much do you agree with the following statements about children from newborn to age 5?





# Talk, Read, and Sing Behaviors and Intentions

# Percent of Participants Who Engage in the Following Activities, **Number of Days in a Typical Week** (N = 873)

- ✓ *Talking to children is a ubiquitous behavior, with reading, singing and telling stories without the use of books varying more across respondents.*

	0-1 days	2-3 days	4-5 days	6-7 days
<b>Read</b> stories or look at picture books	9.6%	27.1%	26.1%	37.2%
<b>Tell stories</b> without using books	27.8%	33.8%	16.8%	21.6%
<b>Sing</b> songs or sing along to music	8.2%	16.8%	19.2%	55.8%
<b>Talks</b> to the child*	2.4%	7.1%	6.8%	<b>83.7%</b>

\* In the survey, the following description was used for **talking**: “You can talk to your child in many different ways. For instance, you can name items, like ‘bottle’ or ‘dog,’ describe activities you do together or activities you do around the house, or describe things you see at home or outside.”

# Percent of Participants Who Engage in the Following Activities, **Number of Times per Day**

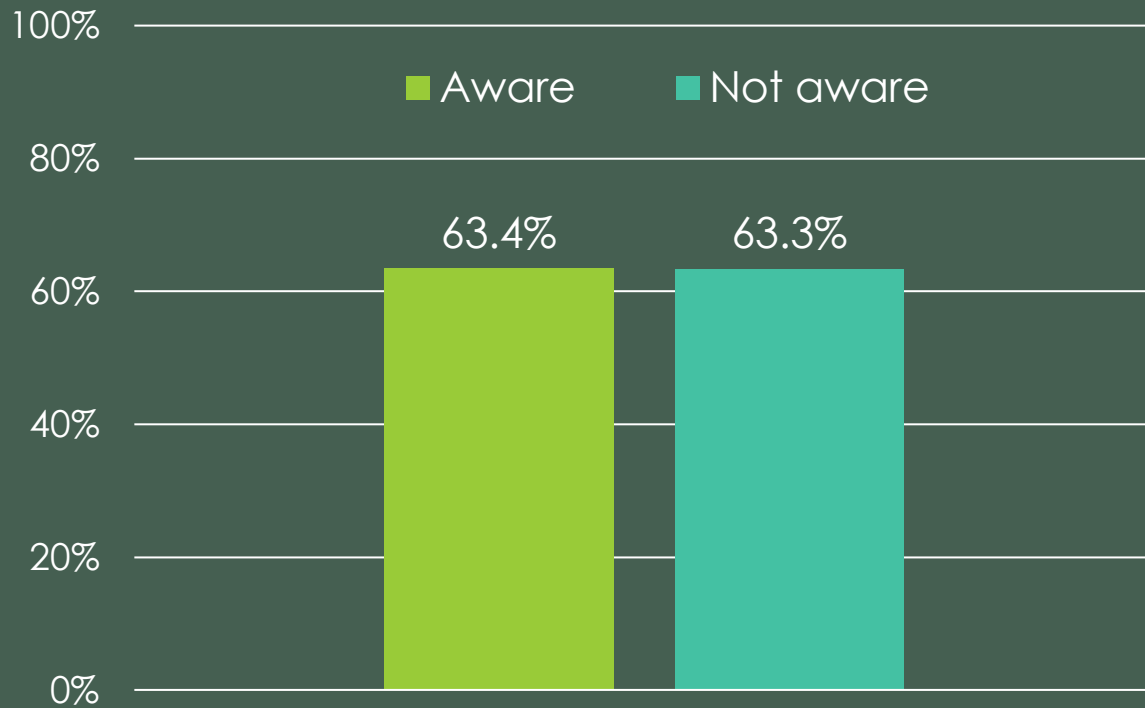
- ✓ *Talking to children multiple times per day is also universally a frequent behavior compared to reading, singing and telling stories without the use of books.*
- ✓ *Telling stories without the use of books is a messaging opportunity.*

	1 time	2 times	3 times	4+ times
<b>Read</b> stories or look at picture books (n = 839)	35.4%	38.9%	13.9%	11.8%
<b>Tell stories</b> without using books (n = 708)	49.2%	27.8%	12.1%	10.9%
<b>Sing</b> songs or sing along to music (n = 828)	15.9%	24.8%	21.3%	38.0%
<b>Talks</b> to the child* (n = 860)	3.5%	8.5%	16.7%	<b>71.3%</b>

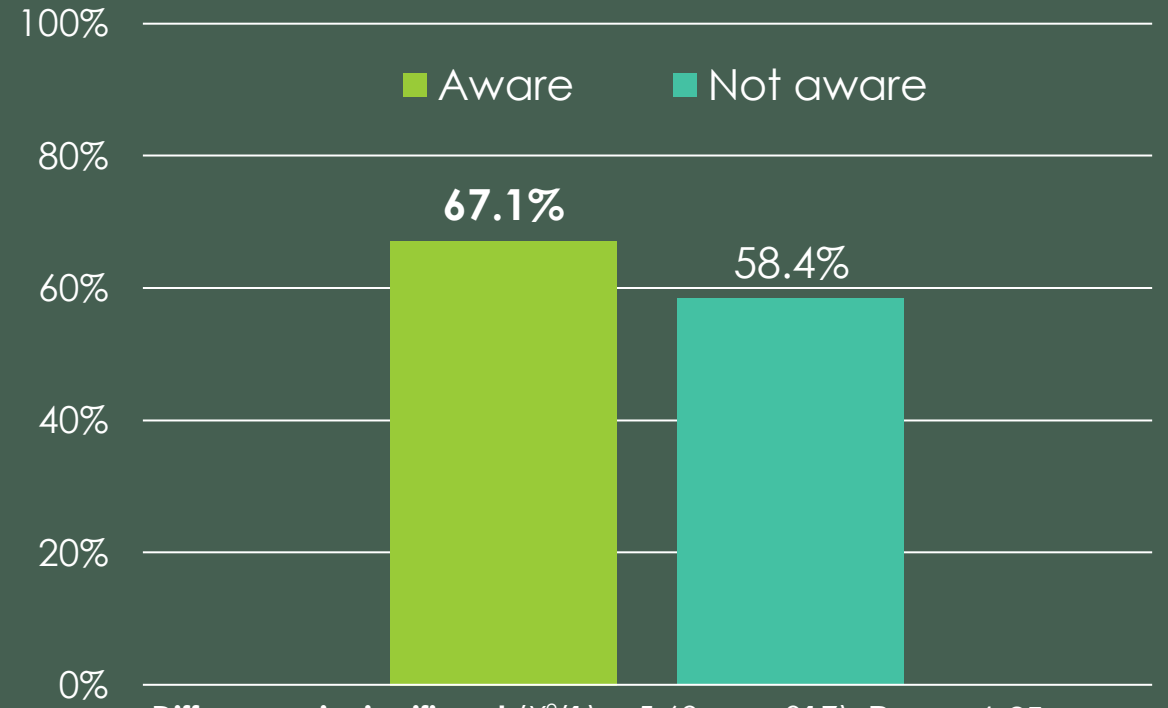
\* In the survey, the following description was used for **talking**: “You can talk to your child in many different ways. For instance, you can name items, like ‘bottle’ or ‘dog,’ describe activities you do together or activities you do around the house, or describe things you see at home or outside.”

# Read Stories or Look at Picture Books

Percent who engage in this activity on **most days (4-7 days) of the week** (N = 873)



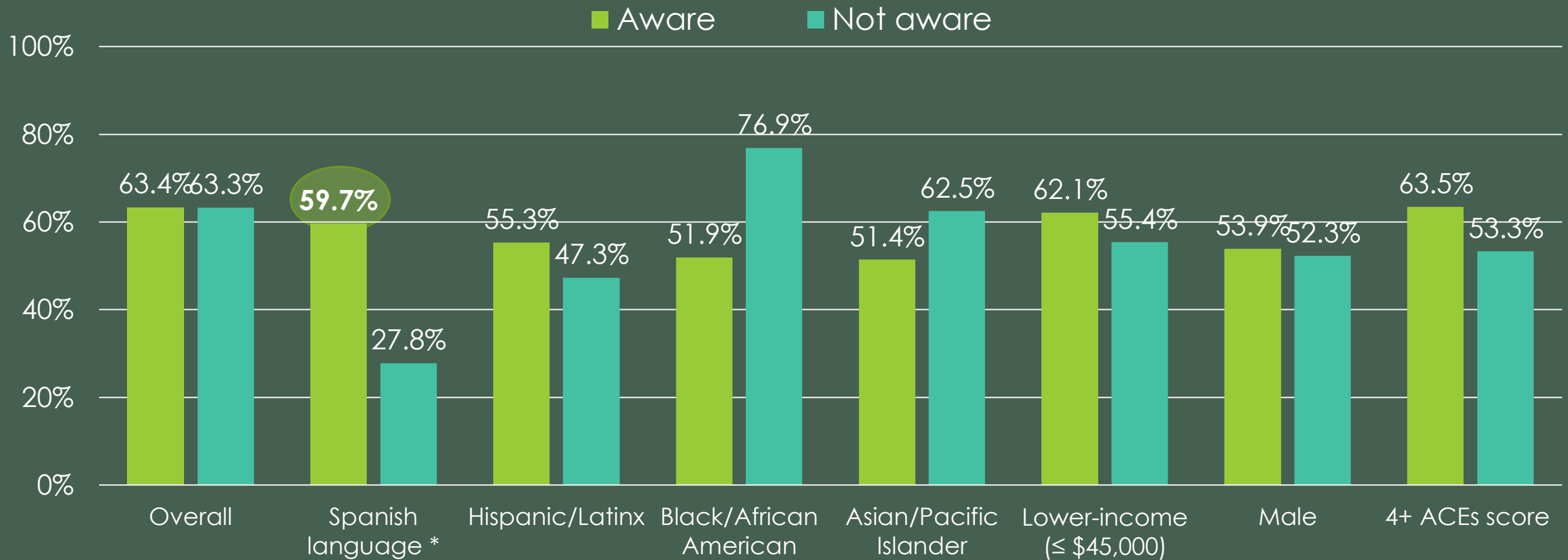
Percent who engage in this activity **2 or more times per day** (N = 839)



**Difference is significant** ( $\chi^2(1) = 5.68, p = .017$ ). Range: 1-25.  
Excludes one outlier (value = 50) and those who do not read to the child.

# Percent Who Read Stories or Look at Picture Books **Most Days of the Week**, by Segments of Interest (N = 873)

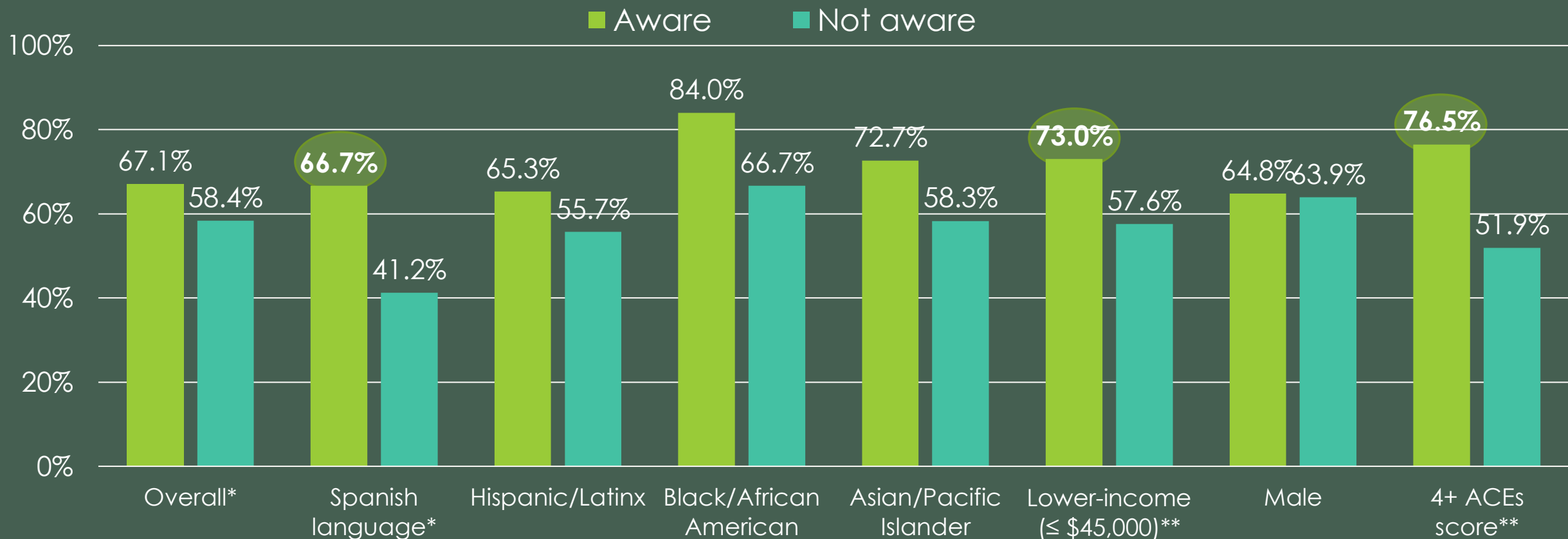
✓ *Spanish speakers aware of the campaign were more likely to read stories or look at picture books most days of the week compared to other segments.*



\*  $p \leq .05$ ; Spanish language:  $X^2(1) = 5.99, p = .014$ .

# Among Those Who Read Stories, Percent Who Do This **Two or More Times a Day**, by Segments of Interest (N = 839)

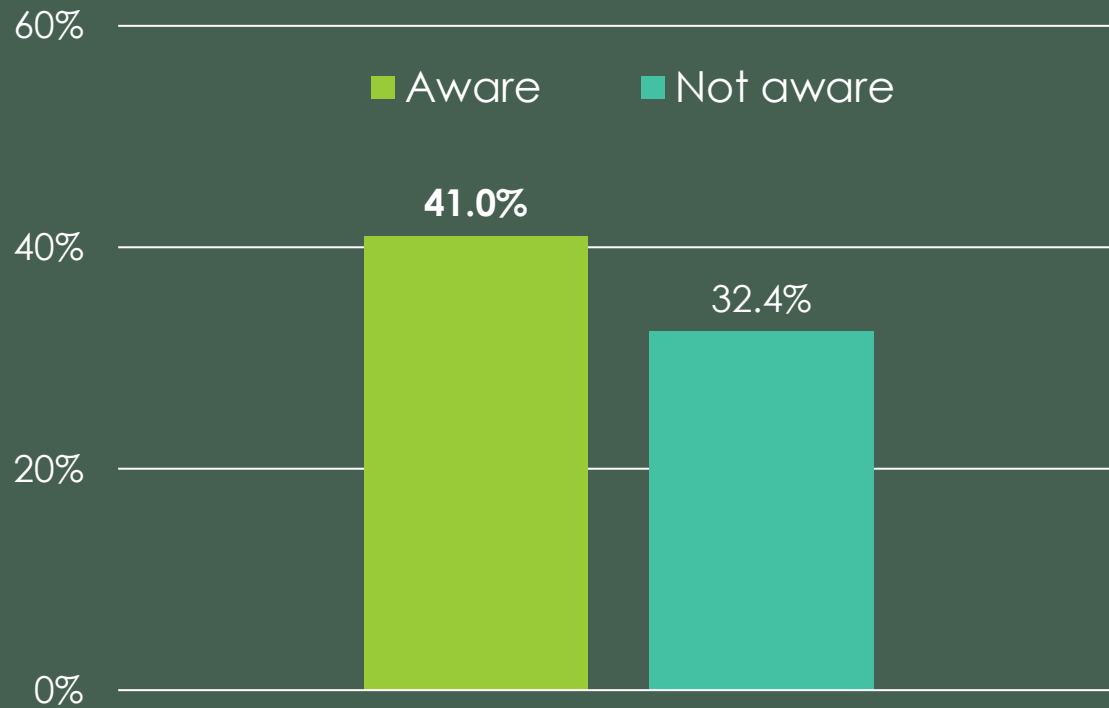
✓ Campaign awareness increased frequency of reading stories among Spanish (dominant) speakers, lower-income, and respondents with higher ACEs scores.



\*  $p \leq .05$ ; Overall:  $X^2(1) = 5.68, p = .017$ ; Spanish language:  $X^2(1) = 5.82, p = .051$ . \*\*  $p \leq .01$ ; 4+ ACEs score:  $X^2(1) = 6.29, p = .012$ . \*\*\*  $p \leq .001$ ; Lower-income:  $X^2(1) = 10.05, p = .002$ .

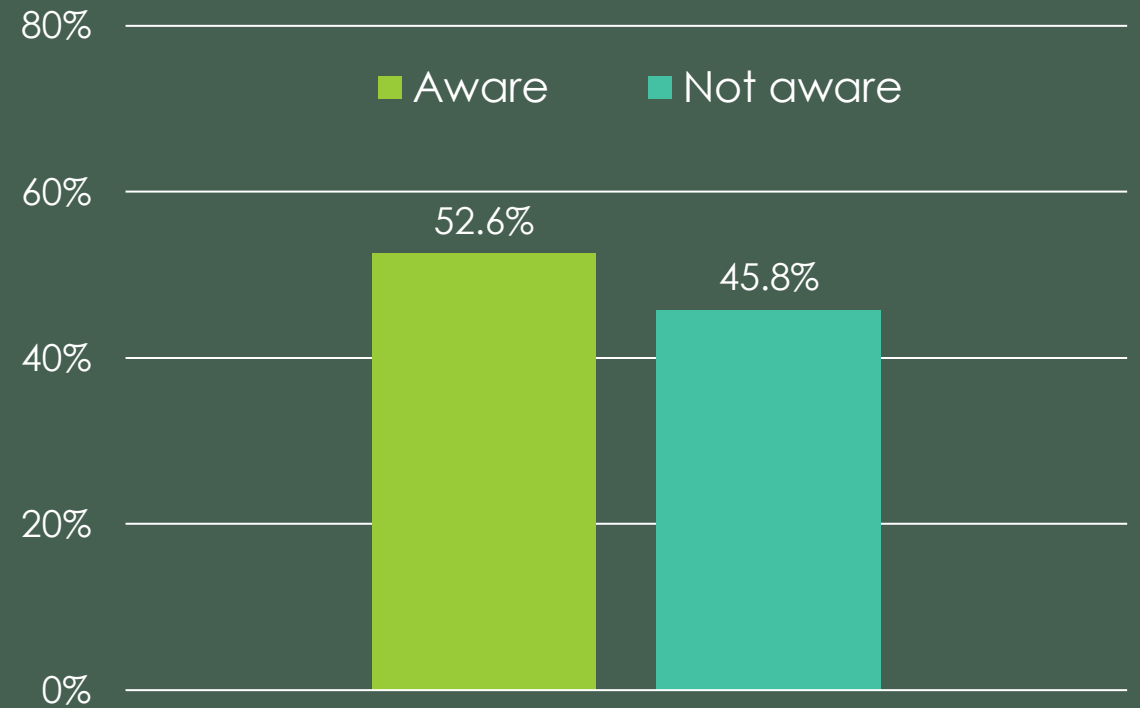
# Tells Stories Without Using Picture Books

Percent who engage in this activity on **most days (4-7 days) of the week** (N = 873)



Difference is significant ( $\chi^2(1)=5.63, p = .018$ ).

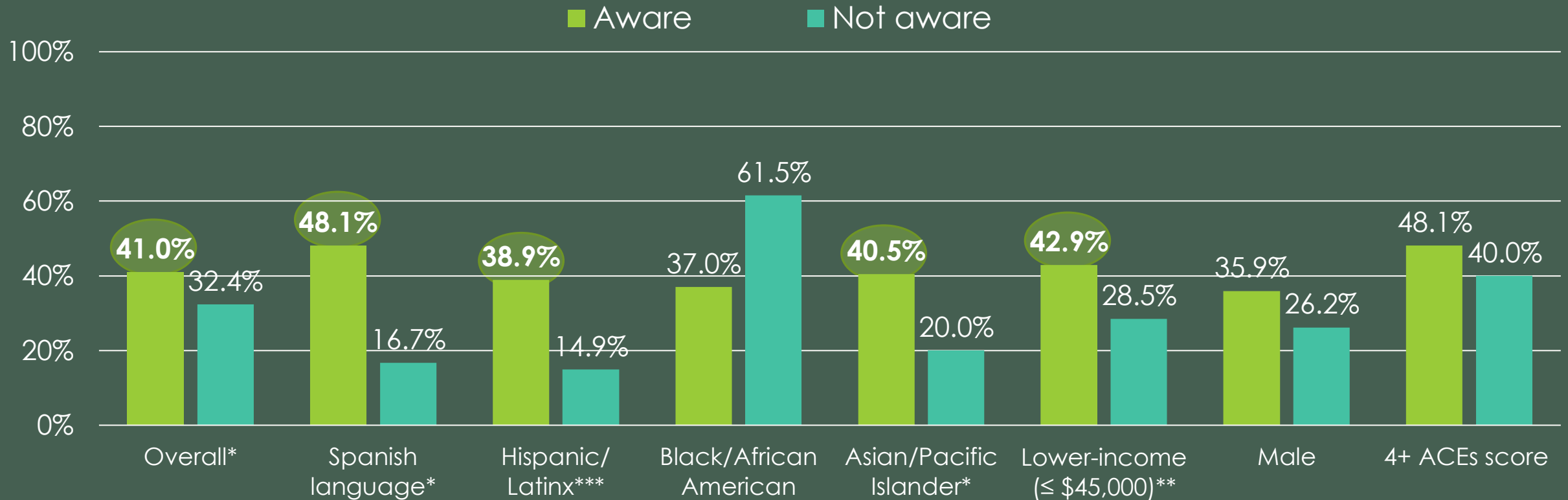
Percent who engage in this activity **a greater number of times per day** (N = 708)



Range: 1-11. Excludes one outlier (value = 20) and those who do not tell stories to the child.

# Percent Who Tell Stories Without Books **Most Days of the Week**, by Segments of Interest (N = 873)

✓ Campaign awareness was associated with telling stories most days of the week among Spanish speakers, Latinos, and lower income respondents.

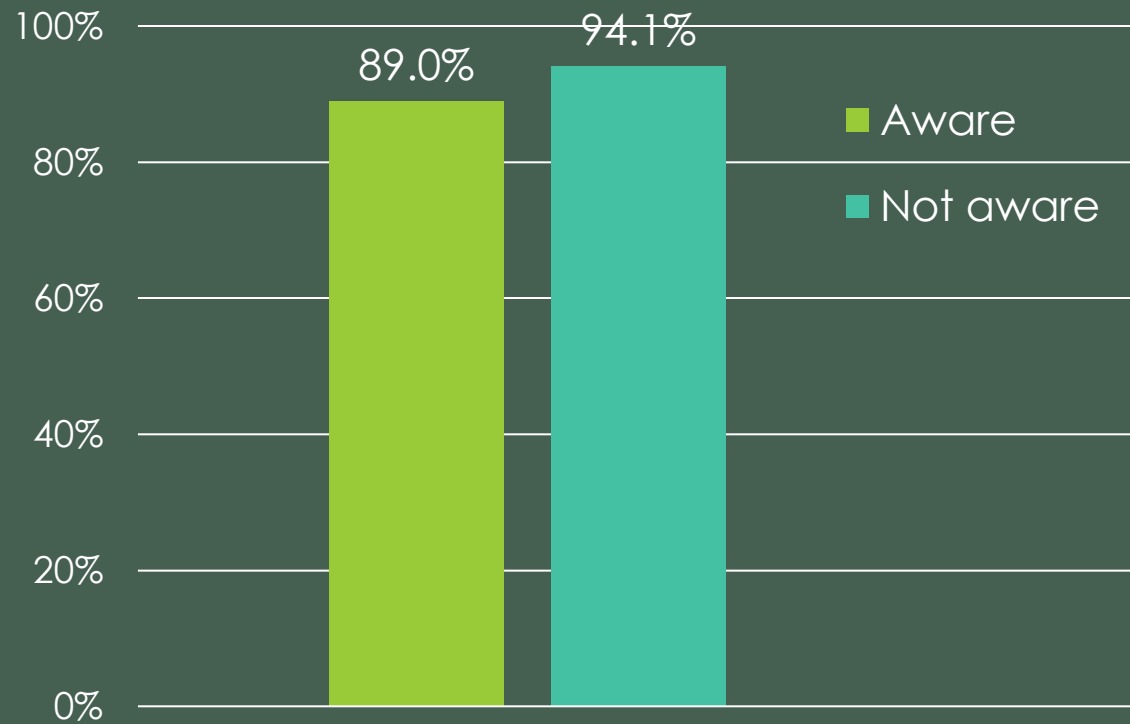


\*  $p \leq .05$ ; Overall:  $X^2(1)=5.63, p = .018$ ; Spanish language:  $X^2(1) = 5.89, p = .015$ ; Asian/PI:  $X^2(1) = 3.87, p = .049$  \*\*  $p \leq .01$ ; Lower-income:  $X^2(1) = 8.29, p = .004$ . \*\*\*  $p \leq .001$ ; Latinx:  $X^2(1) = 14.61, p = .000$ .



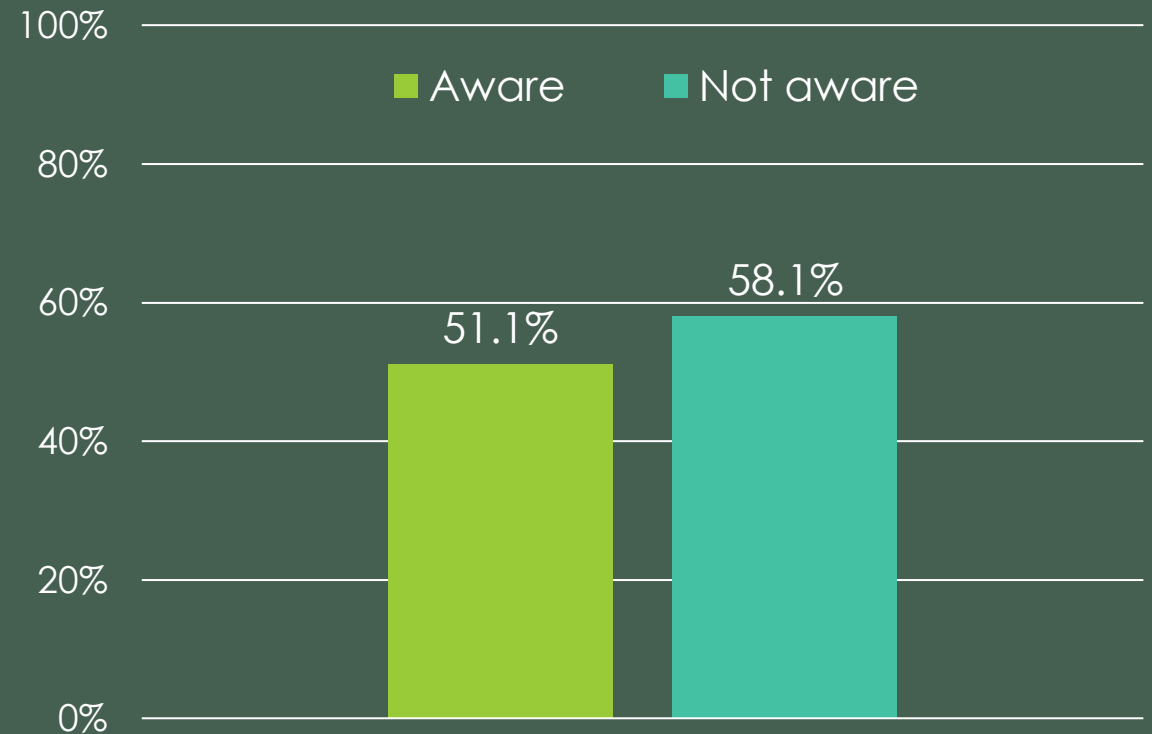
# Talks with the Child

Percent who engage in this activity on **most days (4-7 days) of the week** (N = 873)



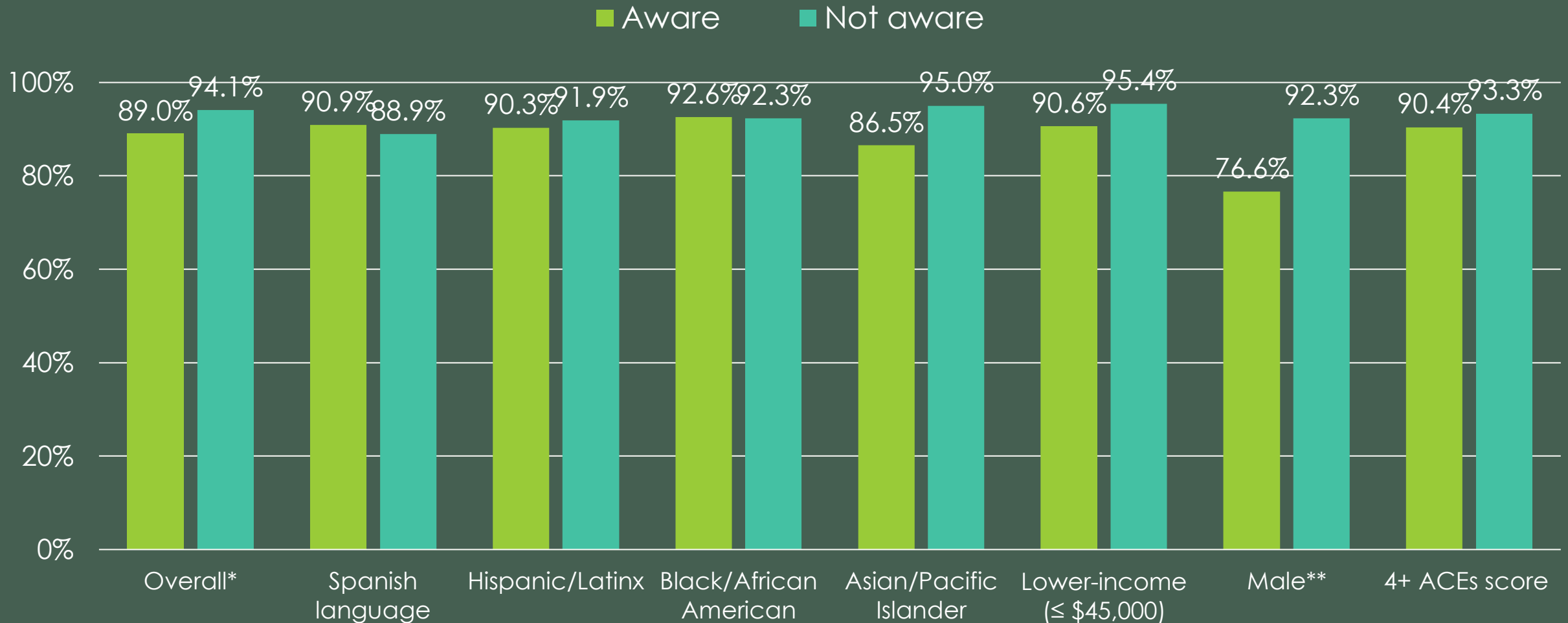
Difference is significant:  $X^2(1) = 5.60, p = .018$ .

Percent who engage in this activity **10 or more times per day** (N = 860)



Range: 1-1000. Excludes one outlier (value = 1,000,000) and those who do not talk with the child.

# Percent Who Talks with the Child **Most Days of the Week**, by Segments of Interest (N = 873)

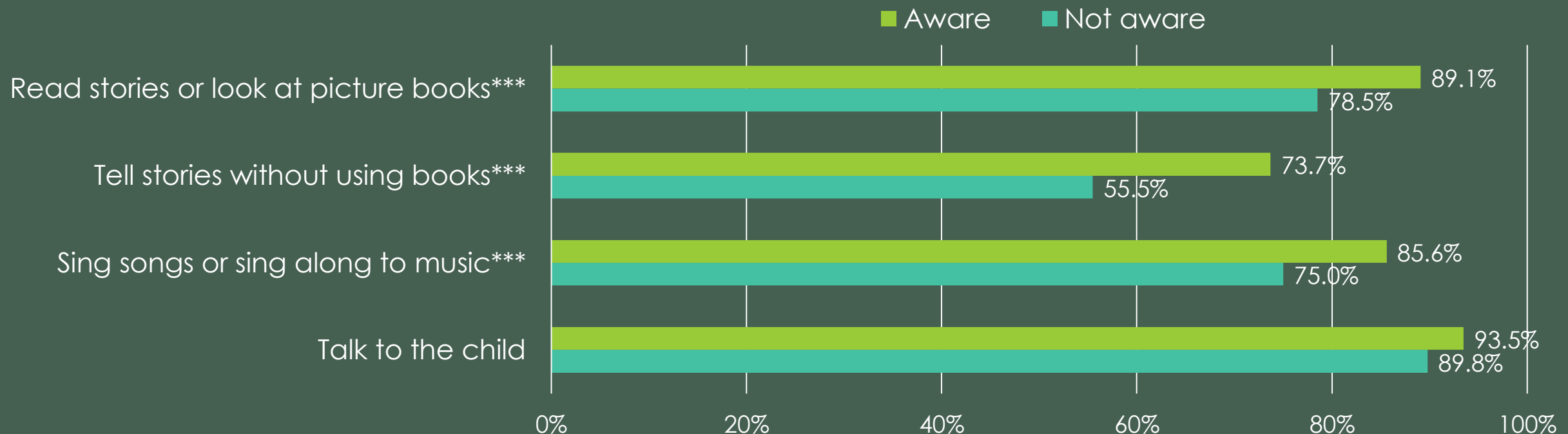


\*\*  $p \leq .01$ ; Overall:  $X^2(1) = 5.60, p = .018$ ; Male:  $X^2(1) = 7.47, p = .006$ .

# Encourages Others to Engage in the Following Behaviors with Their 0-5-year-old Child (N = 873)

- ✓ Campaign awareness is significantly associated with encouraging others to engage in TRS behaviors.

*During the last 12 months, have you asked or encouraged anyone else in the household to do any of the following activities with this young child...?*



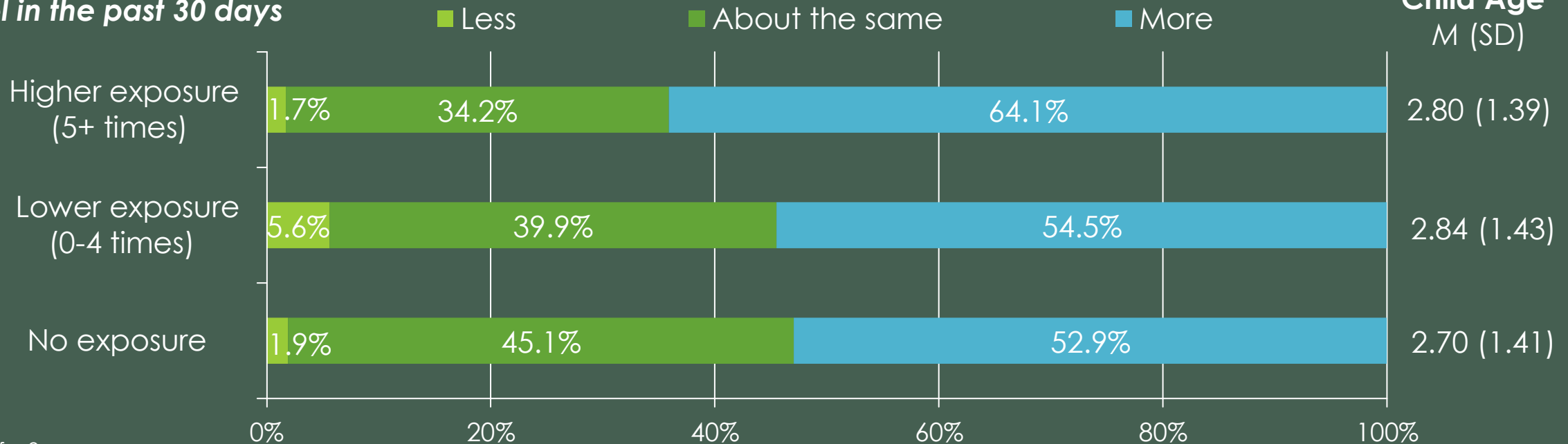
\*\*\*  $p \leq .001$ ; Read stories:  $X^2(1) = 16.99, p = .000$ ; Tell stories without books:  $X^2(1) = 27.95, p = .000$ ; Sing or sing along to music:  $X^2(1) = 13.99, p = .000$ .

# Talk, Read, and Sing Behaviors Pre-COVID-19 Comparisons

# Have you **talked by sharing observations** during the last 12 months less, about the same, or more with the young child [1-5 y.o.] **in comparison to the period before the COVID-19 pandemic?** (N = 670)

- ✓ During the COVID-19 pandemic, parents/caregivers generally engaged in more TRS behaviors, but exposure to the campaign was associated with an increase in these behaviors compared to the period before the pandemic. This suggests TRS behaviors are increasing with exposure to the campaign after the pandemic.
- ✓ Same pattern of significant results for reading books, telling stories, describing activities around the home, and singing.

## Campaign exposure level in the past 30 days



\*F = .542, df = 2, ns.

**Difference between exposure is significant:**  $\chi^2(4) = 13.00, p = .011$ .

Note: Excludes children younger than 1 year old who would not have been around pre-COVID-19.

# Binary Logistic Regression Models

# Models For Outcomes Related to Campaign

## Independent Variables (Predictors)

- Campaign exposure level
- Parent/caregiver age and gender
- Child age and gender
- Total number of children at home
- Has read books on parenting
- Has taken parenting classes
- Preferred survey language
- Race/ethnicity
- Education level
- Income level
- Employment

The purpose of this analysis is to control for multiple potential explanations of TRS behaviors and determine if campaign exposure is still a significant predictor of these behaviors.

## Dependent Variables (Outcomes)

- Number of times/day read or look at picture books with child (0 = 1 time, 1 = 2 or more times)
- Number of days/week tell stories without books to child (0 = Fewer days (0-3), 1 = Most days (4-7))
- During the past 12 months, has looked online for activities to do with child (0 = No, 1 = Yes)

**Note:** Additional models were tested, but only those that yielded significant results with campaign exposure are included in this section.

# Engages in the Following Activities with/for the 0-5-year-old Child

		Reads 2+ times per day (N = 798)	Tells stories most days (4-7) of the week (N = 832)	Looked online the past 12 months for information about activities to do (N = 832)
Variables	Levels	Odds Ratio	Odds Ratio	Odds Ratio
<b>Campaign Awareness</b>	No campaign exposure (REF)	1	1	1
	Lower-level exposure (0-4 times)	1.23	1.02	1.48
	Higher-level exposure (5+ times)	<b>1.81**</b>	<b>1.73**</b>	<b>1.83**</b>
<b>Parent/caregiver age</b>	Continuous (18-74 years old)	<b>0.98*</b>	0.99	<b>0.97**</b>
<b>Parent/caregiver gender</b>	Male (REF) v. Female	1.02	1.27	<b>2.21***</b>
<b>Child age</b>	0-11 months (REF)	1	1	1
	1 year old	0.93	<b>0.56**</b>	0.94
	2 years old	1.24	0.76	1.25
	3 years old	1.06	<b>0.61*</b>	1.46
	4 years old	0.81	<b>0.53**</b>	1.50
	5 years old	1.00	1.07	1.64
<b>Child gender</b>	Male (REF) v. Female	0.92	1.30	1.04
<b>Number of children at home</b>	Continuous (1-7)	1.09	<b>1.28***</b>	0.85
<b>Has read books on parenting</b>	No (REF) v. Yes	<b>1.48*</b>	1.34	2.88
<b>Has taken parenting classes</b>	No (REF)	1	1	1
	Yes, not court mandated	1.03	1.13	0.87
	Yes, court mandated	1.16	0.95	0.76

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$



# Engages in the Following Activities with/for the 0-5-year-old Child

Variables	Levels	Reads 2+ times per day Odds Ratio	Tells stories most days (4-7) of the week Odds Ratio	Looked online the past 12 months for information about activities to do Odds Ratio
<b>Survey language</b>	English (REF) v. Spanish	0.80	1.07	0.73
<b>Race/ethnicity</b>	White (REF)	1	1	1
	Hispanic/Latinx	0.92	<b>0.62*</b>	1.08
	Black/African American	2.25	0.90	2.13
	Asian/Pacific Islander	1.40	0.80	<b>2.77**</b>
	Mixed Race or Other	1.36	0.93	1.19
<b>Income</b>	\$25,000 or less (REF)	1	1	1
	\$25,001-\$45,000	1.35	<b>0.64*</b>	0.98
	\$45,001 to \$65,000	0.78	<b>0.59*</b>	0.76
	\$65,001 to \$75,000	0.89	0.89	0.60
<b>Education</b>	Some high school or less (REF)	1	1	1
	Completed high school, GED	1.15	<b>0.51*</b>	1.33
	Some college or trade school	0.90	0.57	1.12
	Associate's degree (2 years)	1.52	0.61	1.51
	College degree (4 years) or more	0.65	0.61	1.44
<b>Employment</b>	Full-time homemaker (REF)	1	1	1
	Working full-time	1.38	1.29	0.93
	Working part-time	0.67	1.34	0.70
	Self-employed	1.41	1.04	1.04
	Unemployed, student, disability, other	0.91	1.15	0.67

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

# Models For Outcomes Related to Campaign

## Independent Variables (Predictors)

- Campaign exposure level
- Parent/caregiver age and gender
- Child age and gender
- Total number of children at home
- Has read books on parenting
- Has taken parenting classes
- Preferred survey language
- Race/ethnicity
- Education level
- Income level
- Employment

## Dependent Variables (Outcomes)

*During the last 12 months, has asked or encouraged others at home to... (0 = No, 1 = Yes)*

- Read or look at picture books with child
- Tell stories without books to child
- Sing songs or sing along to music with child
- Talk to child

**Note:** Additional models were tested, but only those that yielded significant results with campaign exposure are included in this section.

# During the last 12 months, have you asked or encouraged anyone else in the household to do any of the following activities with this young child? (N = 832)

Variables	Levels	Read stories or look at picture books	Tell stories without book	Sing songs or sing along to music	Talk to child
		Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio
<b>Campaign Awareness</b>	No campaign exposure (REF)	1	1	1	1
	Lower-level exposure (0-4 times)	<b>1.73*</b>	<b>1.58**</b>	<b>1.63*</b>	1.28
	Higher-level exposure (5+ times)	<b>3.05***</b>	<b>3.09***</b>	<b>2.73***</b>	<b>2.92**</b>
<b>Parent/caregiver age</b>	Continuous (18-74 years old)	0.99	0.98	0.99	0.97
<b>Parent/caregiver gender</b>	Male (REF) v. Female	1.43	1.10	<b>2.26***</b>	1.52
<b>Child age</b>	0-11 months (REF)	1	1	1	1
	1 year old	0.85	1.00	1.25	0.81
	2 years old	1.61	0.80	0.83	0.68
	3 years old	0.99	0.78	1.02	0.69
	4 years old	1.24	0.91	0.64	0.85
	5 years old	0.82	1.31	<b>0.48*</b>	0.39
<b>Child gender</b>	Male (REF) v. Female	0.85	1.03	1.10	1.13
<b>Number of children at home</b>	Continuous (1-7)	<b>1.35**</b>	<b>1.37***</b>	<b>1.27*</b>	1.35
<b>Has read books on parenting</b>	No (REF) v. Yes	<b>2.36***</b>	<b>2.20***</b>	<b>1.71**</b>	<b>2.40**</b>
<b>Has taken parenting classes</b>	No (REF)	1	1	1	1
	Yes, not court mandated	0.99	0.96	0.96	0.75
	Yes, court mandated	0.53	1.17	0.40	0.64

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

# During the last 12 months, have you asked or encouraged anyone else in the household to do any of the following activities with this young child? (N = 832)

Variables	Levels	Read stories or look at picture books	Tell stories without book	Sing songs or sing along to music	Talk to child
		Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio
<b>Survey language</b>	English (REF) v. Spanish	<b>0.43*</b>	0.94	0.58	0.67
<b>Race/ethnicity</b>	White (REF)	1	1	1	1
	Hispanic/Latinx	1.07	<b>0.61*</b>	1.44	1.22
	Black/African American	2.13	1.01	0.93	0.85
	Asian/Pacific Islander	0.87	0.78	0.89	0.97
	Mixed Race or Other	2.19	0.71	1.87	1.60
<b>Income</b>	\$25,000 or less (REF)	1	1	1	1
	\$25,001-\$45,000	1.27	0.97	1.02	1.06
	\$45,001 to \$65,000	1.06	0.91	1.26	1.04
	\$65,001 to \$75,000	0.90	0.93	1.35	0.92
<b>Education</b>	Some high school or less (REF)	1	1	1	1
	Completed high school, GED	0.69	0.69	0.89	0.53
	Some college or trade school	0.91	0.86	1.89	1.62
	Associate's degree (2 years)	0.76	0.68	0.73	0.56
	College degree (4 years) or more	0.84	0.64	0.90	0.62
<b>Employment</b>	Full-time homemaker (REF)	1	1	1	1
	Working full-time	<b>2.13*</b>	<b>2.11**</b>	1.46	1.20
	Working part-time	1.01	1.57	1.16	0.65
	Self-employed	2.35	<b>2.94**</b>	0.88	1.02
	Unemployed, student, disability, other	1.04	1.23	0.87	0.68

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

# Models For Outcomes Related to Campaign

## Independent Variables (Predictors)

- Campaign exposure level
- Parent/caregiver age and gender
- Child age and gender
- Total number of children at home
- Has read books on parenting
- Has taken parenting classes
- Preferred survey language
- Race/ethnicity
- Education level
- Income level
- Employment

## Dependent Variables (Outcomes)

**Compared to the period before COVID-19, amount that has done the following...** (0 = Less or About the same, 1 = More)

- Tell stories without books to child
- Sing songs or sing along to music with child
- Talk to child by sharing observations

**Note:** Additional models were tested, but only those that yielded significant results with campaign exposure are included in this section.

Have you done the following during the last 12 months less, about the same, or more with the [1-5-year-old] child in comparison to the period before the COVID-19 pandemic? (N = 658)

Variables	Levels	Tell stories without book	Sing songs or sing along to music	Talk to them by sharing observations
		Odds Ratio	Odds Ratio	Odds Ratio
<b>Campaign Awareness</b>	No campaign exposure (REF)	1	1	1
	Lower-level exposure (0-4 times)	1.13	0.94	1.10
	Higher-level exposure (5+ times)	<b>1.84**</b>	<b>1.50*</b>	<b>1.56*</b>
<b>Parent/caregiver age</b>	Continuous (18-74 years old)	0.99	<b>0.97*</b>	0.98
<b>Parent/caregiver gender</b>	Male (REF) v. Female	1.00	<b>1.53*</b>	1.04
<b>Child age</b>	1 year old (REF)	1	1	1
	2 years old	1.18	1.45	1.60
	3 years old	1.16	1.16	1.37
	4 years old	1.29	1.06	1.30
	5 years old	0.99	1.19	1.14
<b>Child gender</b>	Male (REF) v. Female	0.80	1.20	1.01
<b>Number of children at home</b>	Continuous (1-7)	1.00	1.00	1.12
<b>Has read books on parenting</b>	No (REF) v. Yes	<b>1.69**</b>	1.39	<b>1.45*</b>
<b>Has taken parenting classes</b>	No (REF)	1	1	1
	Yes, not court mandated	1.06	0.96	1.05
	Yes, court mandated	1.12	0.89	<b>0.26**</b>

$p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$

**Note: Excludes children younger than 1 year old who would not have been around pre-COVID-19.**

Have you done the following during the last 12 months less, about the same, or more with the [1-5-year-old] child in comparison to the period before the COVID-19 pandemic? (N = 658)

		Tell stories without book	Sing songs or sing along to music	Talk to them by sharing observations
Variables	Levels	Odds Ratio	Odds Ratio	Odds Ratio
<b>Survey language</b>	English (REF) v. Spanish	0.93	0.99	0.85
<b>Race/ethnicity</b>	White (REF)	1	1	1
	Hispanic/Latinx	0.99	1.52	<b>1.96**</b>
	Black/African American	1.22	1.08	1.04
	Asian/Pacific Islander	0.92	1.44	1.31
	Mixed Race or Other	1.08	1.39	1.05
<b>Income</b>	\$25,000 or less (REF)	1	1	1
	\$25,001-\$45,000	<b>0.55*</b>	0.69	0.81
	\$45,001 to \$65,000	0.84	1.30	0.91
	\$65,001 to \$75,000	1.42	1.10	0.99
<b>Education</b>	Some high school or less (REF)	1	1	1
	Completed high school, GED	1.43	1.28	1.25
	Some college or trade school	1.20	1.81	1.52
	Associate's degree (2 years)	1.15	1.38	1.01
	College degree (4 years) or more	0.99	1.39	1.69
<b>Employment</b>	Full-time homemaker (REF)	1	1	1
	Working full-time	<b>1.83*</b>	1.57	1.44
	Working part-time	1.16	<b>2.06*</b>	1.14
	Self-employed	1.77	1.73	1.50
	Unemployed, student, disability, other	1.31	1.55	1.15

\*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ ; Note: Excludes children younger than 1 year old who would not have been around pre-COVID-19.

# Summary of Findings



# Campaign Awareness and Effectiveness

- **Campaign awareness is high (70.7% with San Diego and 72.8% without San Diego).**
  - **Across segments, except in San Diego and among Asian/Pacific Islander respondents, awareness was even higher:** Spanish language-dominant (81.1% awareness); residents with ACEs score of 4 or more (77.6%); Hispanic/Latinx (75.3%); household income below \$45,001 (72.3%); and male gender (72.0%).
- When asked about **unaided awareness** among those who recalled ads in the past 12 months about learning and development issues for babies and young children, **the vast majority of first and second mentions was "First 5 California" (26.1%). *Talk. Read. Sing.* was also mentioned often (8.8%).**
- **All three ads** – two video ads and one radio ad – **were highly rated on key dimensions of effectiveness** (importance of behavior and motivation) **and prompted people to engage in more TRS behaviors.**

# TRS Importance and Attitudes

- A majority know the importance of TRS behaviors, but **those with more campaign exposure are more likely to see the importance, suggesting that campaign exposure reminds them of these TRS behaviors.**
- A majority also agreed with TRS benefits, and **those with more exposure to the campaign were in greater agreement with these benefit statements.**
- While most understand the importance of TRS with younger children/infants, there are **about 2 in 10 that need targeted messaging to help them understand the importance of these behaviors and debunk false beliefs.**
  - Male and lower-income segments tend to have higher agreement with false beliefs about TRS (e.g., “You should only read books to children when they are old enough to understand them”).

# TRS Behaviors

- **Talking to children is a ubiquitous behavior**, with 90.5% reporting talking most days of the week (ceiling effect). Reading, singing and telling stories without the use of books throughout the week varied more across respondents.
- **Talking to children multiple times per day is also a common behavior**, with 71.3% reporting this 4+ times/day. Reading, singing and telling stories without the use of books throughout the day varied more across respondents.
- **Telling stories without the use of books is a messaging opportunity**, with only 38.4% doing this most days of the week.

# TRS Behaviors (Bi-variate Analyses)

TRS Behavior	Campaign Impact
<b>Read stories or look at picture books</b>	<ul style="list-style-type: none"><li>○ Overall, those aware of the campaign were more likely than those not aware to read 2+ times/day.</li><li>○ The campaign had a positive impact among <b>Spanish language-dominant</b> and <b>lower-income</b> residents and those who with <b>4+ ACEs scores</b>.</li></ul>
<b>Tell stories without the use of books</b>	<ul style="list-style-type: none"><li>○ Overall, those aware of the campaign were more likely than those not aware to tell stories on most days of the week.</li><li>○ The campaign had a positive impact on telling stories among <b>Spanish language-dominant, lower-income, Hispanic/Latinx, and Asian/Pacific Islander</b> residents.</li></ul>
<b>Sing songs or sing along to music</b>	<ul style="list-style-type: none"><li>○ The campaign had a positive impact on singing among <b>Spanish language-dominant</b> residents.</li></ul>

# Additional TRS Behaviors (Bi-variate Analyses)

- Campaign awareness is significantly associated with encouraging others to engage in TRS behaviors.
- During the COVID-19 pandemic, parents/caregivers generally engaged in more TRS behaviors, but **exposure to the campaign was associated with an increase in these behaviors compared to the period before the pandemic. This suggests that TRS behaviors are increasing with exposure to the campaign after the pandemic.**
  - There were similar patterns of significant results for: reading books, telling stories, describing activities around the home, talking by sharing observations, and singing.

# TRS Behaviors (Binary Logistic Regression)

- When controlling for other explanatory variables and demographic information, **higher-level campaign exposure is a significant, strong predictor of:**
  - Reading stories or looking at picture books 2+ times/day
  - Telling stories without books most days of the week
  - Looking online for information about activities to do with the child
  - Asking or encouraging others at home to read to the child, tell stories to the child, sing songs or sing along to music with the child, and talk to the child.
  - Engaging in the following activities with the child more today, compared to the period before the COVID-19 pandemic: telling stories without books, singing, and talking by sharing observations.

The Fraser logo features a stylized teal leaf icon to the left of the word "fraser" in a dark brown, lowercase serif font.The Sentient Research logo consists of a cluster of white dots of varying sizes on the left, followed by the word "SENTIENT" in a bold, white, uppercase sans-serif font. Below "SENTIENT" is the word "RESEARCH" in a white, uppercase sans-serif font, with wide letter spacing.