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## US consumer attitudes toward sodium in baby and toddler foods

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### Abstract

Dietary data from a nationally representative survey indicate about 80% of US toddlers aged 1–3 years consume too much dietary sodium, which can influence their preference for salty foods in later life. Information on consumer attitudes can inform strategies to reduce sodium in baby and toddler foods. Data were obtained from a 2012 online survey sent to a sample of 11636 US adults aged 18 years enrolled in a national probability-based consumer panel; 6378 completed the survey and had nonmissing responses to the question of interest, “It is important for baby and toddler foods to be low in sodium.” Prevalence of agreement was estimated. Logistic regression was used to describe associations of respondent characteristics with agreement. The majority of respondents were non-Hispanic white and had a household income  $\leq$  \$60,000. About 7 in 10 (68%, 95% CI: 66%–70%) respondents agreed it is important for baby or toddler foods to be low in sodium. More than 6 of 10 respondents in most subgroups agreed. Among parents with a child currently aged  $<2$  years ( $N = 390$ ), 82% agreed (95% CI: 77%–87%); the highest agreement included parents who thought sodium was very harmful to their own health (92%, 95% CI: 85%–99%) or who were watching/reducing their own sodium intake (95%, 95% CI: 90%–100%). After adjusting for sex, age, race-ethnicity, agreement was most strongly associated with being a parent of a child  $<2$  years, thinking sodium was harmful, and watching/reducing sodium intake (adjusted odds ratios = 2.5, 95% CI’s = 1.0). The majority of respondents including most parents agreed it is important for baby and toddler foods to be low in sodium, suggesting wide consumer support for strategies to lower sodium in these foods.

### Keywords

Sodium; Baby/toddler foods; Knowledge; Attitudes; Behaviors; Nutrition

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### Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.appet.2016.04.009>.

## 1. Introduction

During the transition from infancy to age 12–24 months, data suggest average US sodium intake increases about 9 fold, from roughly 191 mg per day among infants 0–6 months of age to 1709 mg per day among toddlers 12–24 months of age (Maalouf et al., 2015). About 79% of US children aged 1–3 years consume more than the Institute of Medicine (IOM) Upper Level (UL) of sodium for their age group, 1500 mg of dietary sodium, and by IOM definition children consuming more than the UL are at potential risk of adverse health effects from excess intake (Maalouf et al., 2015) (Tian, Zhang, Loustalot, Yang, & Cogswell, 2013) (Centers for Disease Control and Prevention (CDC), 2013). In randomized controlled trials, sodium intake is associated with higher blood pressure among children (He & MacGregor, 2006) (Aburto et al., 2013). Longitudinal studies suggest blood pressure tracks with age, and school-age and older children with high blood pressure are more likely to develop hypertension as adults (Chen & Wang, 2008) (Li, Sneider, Harshfield, Treiber, & Wang, 2009). High blood pressure is a major risk factor for heart disease, stroke, and other cardiovascular diseases among adults (Law, Morris, & Wald, 2009) (Lewington, Clarke, Qizilbash, Peto, & Collins, 2002) (Yang et al., 2012). In addition, research indicates that eating salty foods in the first two years of life can influence sensitivity to and subsequent preference for these foods later in life (Ahluwalia, Herrick, Paulose- Ram, & Johnson, 2014) (Stein, Cowart, & Beauchamp, 2012). Consistent with US results, four international studies found that on average, children consume amounts of sodium higher than recommended limits (Grimes, Campbell, Riddell, & Nowson, 2011) (Zuccotti et al., 2014) (Marrero, He, Whincup, & MacGregor, 2014) (Campbell et al., 2014).

To promote healthy nutritional eating habits early in life, the American Academy of Pediatrics recommends that parents choose foods with no added salt, whether these foods be commercially prepared or cooked at home (American Academy of Pediatrics [AAP] Committee on Nutrition, 2014). Given the availability of commercial foods targeted specifically to babies or toddlers and the high sodium content of some types of these foods (Cogswell, Gunn, Yuan, Park, & Merritt, 2015), our objective was to examine the prevalence and correlates of US adult consumer attitudes toward sodium in baby and toddler foods. We hypothesized that parents of children younger than two years, individuals with or at higher risk of cardiovascular disease, and those who agree that too much sodium intake is harmful or who are trying to reduce sodium intake would be more likely to agree that toddler foods should be low in sodium (Havranek et al., 2015) (Patel, Cogswell, John, Creel, & Ayala, 2015). As indicated by the IOM in a report on *Strategies to Reduce Sodium Intake in the United States* (Institute of Medicine [IOM], 2010), knowledge of consumer attitudes can support strategies to encourage reduction of sodium in processed foods. To our knowledge, this is the first study looking at US adult consumer attitudes towards sodium in baby and toddler foods.

## 2. Materials and methods

The data used in this study was obtained from Porter Novelli's 2012 ConsumerStyles online database (Novelli, 2012), consisting of a national market research sample of US adults. ConsumerStyles surveys are designed to assess health beliefs and behaviors surrounding

important public health concerns; the ConsumerStyles 2012 survey included 84 questions (Novelli, 2012). Using a combination of random-digit dialing and address-based probability sampling, regardless of whether the household had landline phones or internet access, the online survey was sent to a random sample of 11636 panelists aged 18 years or older from March 31 through April 12, 2012 and included an additional email reminder sent before the end of the recruitment period. Incomplete surveys, defined as respondents who answered fewer than 50% of the questions (N = 52), were excluded. Respondents were not required to complete any of the questions; however, those who completed the survey received 10000 cash equivalent reward points (~\$10) and were eligible to win a prize through monthly sweepstakes (prizes varied and were generally worth less than \$500, i.e. iPad, television, gift care, etc.). The ConsumerStyles survey was completed by 6728 participants yielding a response rate of 58%.

Each participant's response in the 2012 ConsumerStyles sample, was weighted using 9 factors to represent the 2011 US Current Population Survey proportions (United States Census Bureau, 2012) according to his/her sex, age, household income, race/ethnicity, household size, education, census region, metro status, and prior internet access. The Centers for Disease Control and Prevention licensed the results of the 2012 ConsumerStyles survey postcollection from Porter Novelli, who obtains data from GfK's<sup>®</sup> KnowledgePanel<sup>®</sup> (Novelli, 2012). GfK<sup>®</sup> provides panelists with privacy terms and for specific sensitive topic surveys, requires informed consent before self-administration to comply with Human Subjects Review Committees. GfK<sup>®</sup> keeps all personally identifying records in a separate secured facility and will not provide identifiers to a client without explicit informed consent. Licensed data provided to the CDC did not include individual identifiers, making it exempt from CDC institutional review board approval. Consumer Styles 2012 has been used previously to ascertain US consumer seat belt use, in addition to, examining knowledge, attitudes, and behaviors related to sodium reduction (Patel et al., 2015) (Bhat, Beck, Gergen, & Kresnow, 2015).

To assess consumers' agreement that it is important for baby and toddler foods to be low in sodium, respondents were asked to respond to the following statement: "It is important for baby and toddler foods to be low in sodium," using a 5-point Likert scale from *strongly agree* to *strongly disagree*. To examine prevalence of agreement, responses of *strongly agree* and *somewhat agree* were combined into *agree* and compared to combined *neither agree nor disagree*, *somewhat disagree*, and *strongly disagree*. Odds of combined agreement were assessed compared with neutral or combined disagreement.

Potential determinants of agreement included demographic, health, and sodium-related attitudes and behaviors. Demographic characteristics of interest included age, race/ethnicity, education level, household income, region of residence, and whether the respondent was a parent of a child younger than two years of age. Health characteristics included weight status as determined by body mass index (BMI) from self-reported height and weight data, cardiovascular health (self-reported high blood pressure or high cholesterol during the past year), and cardiovascular disease history (self-reported stroke or heart failure during the past year) (Havranek et al., 2015). Sodium-related attitudes or behaviors were assessed through the following questions: "In your opinion, how harmful to your health is eating too much

salt/sodium?” and “Are you currently watching or reducing your sodium/salt intake?” (Patel et al., 2015).

For the purposes of this study, 41 individuals were excluded because of missing information on the statement of interest, “It is important for baby and toddler foods to be low in sodium,” and 309 individuals were excluded because of missing information on sociodemographic or health characteristics, or sodium-related attitudes and behaviors. Exclusions were not made based on age or parental status, as many children spend a majority of their time with a child-care provider other than a parent and the provision of nutrition knowledge extends beyond the home (Gidding et al., 2005) (Federal Interagency Forum on Child and Family Statistics, 2015). The final sample included 6378 persons. Compared with nonrespondents (N = 350), a higher proportion of respondents were male (49% vs. 34%,  $p = 0.0001$  using Chi-Square test), but respondents did not differ by race, age, education, income, or region of residence (Supplemental Table 1).

Weighted percentages and 95% confidence intervals were calculated. Multiple logistic regression analyses were conducted to examine the odds ratios (OR) of agreement adjusted for age, sex, or race/ethnicity. A  $p < 0.05$  was considered significant. A post-hoc subgroup analysis was also conducted to examine if prevalence of agreement that it is important for baby and toddler foods to be low in sodium varied by demographics of parents with at least one child under the age of two years (N = 390). All statistical analyses were conducted using SAS version 9.3 (SAS Institute Inc., Cary, NC).

### 3. Results

Overall the majority of respondents were aged 18–54 years (66%), were non-Hispanic white (68%), had a household income  $\leq$  \$40 000 (67%), and were overweight or obese (62%) (Supplemental Table 2). Nine percent of respondents were parents of at least one child younger than two years of age. Twenty-six percent reported they had high blood pressure. Overall, 97% of respondents reported they thought too much sodium was harmful to their health (i.e. *a little* (24%), *somewhat* (39%), or *very* (34%), combined) (Supplemental Table 2). Fewer than half (45%) reported they were currently watching or reducing their sodium intake (Supplemental Table 2).

Of the 6378 individuals who responded to the question on agreement with “It is important for baby and toddler foods to be low in sodium,” the majority (68%) agreed, either *strongly* (32%) or *somewhat* (36%), whereas only 5% *somewhat* or *strongly* disagreed, 2% *strongly* (data not shown). The highest proportions of agreement (>80%) were among respondents who were parents of at least one child younger than two years of age and those persons who believed too much sodium was harmful to their health (Table 1). The lowest proportions of agreement (30%) were among respondents who thought too much sodium was *not at all* harmful to one’s health, followed by 62% among respondents who were male (Table 1). Among the remainder of the subgroups analyzed, about 7 of 10 respondents agreed that it is important for baby and toddler foods to be low in sodium.

After adjusting for age, sex, and race/ethnicity, respondents aged 65 years or older vs. those aged 18–34 years; women; other non-Hispanic vs. white non-Hispanic; parents of at least one child younger than two years of age; and participants who reported they had high blood pressure, high cholesterol, or were watching or reducing their sodium intake were more likely to agree that it is important for baby and toddler foods to be low in sodium (adjusted OR range: 1.3–2.8,  $p < 0.05$ ) (Table 1). The adjusted ORs for participants who believed eating too much salt or sodium was *somewhat* or *very* harmful to their health were 4.7 (95% CI: 3.1–7.2,  $p < 0.05$ ) and 10.6 (95% CI: 6.8–16.4,  $p < 0.05$ ), respectively (Table 1). The adjusted ORs for education, income, region of residence, BMI, and history of cardiovascular disease were not significantly associated with agreement ( $p > 0.05$ ) (Table 1).

Compared to study respondents, parents with at least one child under the age of two years had higher agreement with “It is important for baby and toddler foods to be low in sodium”, across demographics examined. Overall, roughly eight out of ten parents of at least one child under the age of two years agreed that it is important for baby and toddler foods to be low in sodium (Table 2). The highest proportions of agreement were among parents with self-reported high cholesterol (99%), those parents currently watching their sodium intake (95%), parents who believe sodium is *very harmful* to their health (92%) and parents with a BMI  $< 25 \text{ kg/m}^2$  (88%) (Table 2). After adjusting for age, sex, and race/ethnicity, parents with self-reported high cholesterol (adjusted OR: 21.3, 95% CI: 2.6–174.0,  $p < 0.05$ ) and parents currently watching or reducing their sodium intake (adjusted OR: 6.8, 95% CI: 2.2–20.8,  $p < 0.05$ ) were significantly more likely to agree that it is important for baby and toddler food to be low in sodium (Table 2).

#### 4. Discussion

This study was the first we know of to describe attitudes towards sodium in baby and toddler foods in a large sample of consumers across the United States. Overall, about 7 of 10 adult consumers agreed that it is important for baby and toddler foods to be low in sodium, particularly parents with at least one child younger than two years of age, persons who were currently trying to reduce sodium, and those who thought sodium was harmful to their health. As we hypothesized, persons at higher risk of cardiovascular disease were more likely to agree but, in general, the majority of consumers agreed across subgroups, with one exception, the 3.5% of respondents who believed excess sodium intake was not harmful to their health. Even among this subgroup, 3 in 10 agreed it was important for baby and toddler foods to be low in sodium. Across subgroups examined, eight out of ten parents of at least one child under the age of two years agreed that it is important for baby and toddler foods to be low in sodium. These data suggest broad support for baby and toddler foods being low in sodium content.

These findings may be subject to the following limitations. The sampling for the survey was from a convenience sample of US consumers and was not nationally representative, even though the data was weighted to match the US Current Population Survey using sex, age, household income, race/ethnicity, household size, education, census region, metro status, and prior internet access during analyses (United States Census Bureau, 2012). The majority of respondents in this study were non-Hispanic white and had a household income

\$60000; still, most consumers supported sodium reductions in baby and toddler food regardless of race/ethnicity or income. Participants were included based on nonmissing responses to the questions of interest, which may subject the findings to response bias. Although respondents were more likely to be men than non-respondents, they did not differ in the distributions of age or race-ethnic group. Participation bias may also have resulted if those who completed the survey (N = 6728) disproportionately possess characteristics associated with survey completion, as compared to those 4980 individuals who did not complete the survey. Statistical power was limited to detect differences in attitudes in some subgroups among parents of children aged less than two years. This might have led to a false null result for some subgroups, i.e. belief of the harmfulness of sodium to health. Use of self-reported answers to survey questions can introduce response bias, where responses can be affected by misunderstanding the question or social desirability. Questions aimed at consumer attitudes towards sodium have not undergone psychometric testing; therefore, the validity and reliability of the questions is unknown.

The results of this study suggest that the majority of respondents, especially parents with at least one child under the age of two years, believe it is important for baby and toddler foods to be low in sodium. Sodium exposure in the caregiving environment, which for many children consists of a provider other than parents, have the potential to influence early childhood salty taste preference; enhancing the need for health communications directed to the general population (Stein et al., 2012). Consumer support and demand would strengthen initiatives to reduce sodium in baby and toddler products in the food supply which may result in better health outcomes in the future (Institute of Medicine [IOM], 2010). Many food manufacturers have previously announced voluntary goals or progress towards lowering sodium across their product portfolios and, in some cases, specifically in products designed for infants and toddlers. For example, one of the largest manufacturers of infant and toddler foods reported they reduced the sodium content of toddler products by 30% in 2011 and reduced sodium in toddler meals by as much as 80% in 2013, to support ongoing efforts to meet dietary sodium recommendations for children aged 1–3 years (Nestle, 2013). Parents and caregivers can support sodium reduction and help establish healthy dietary patterns by choosing foods for infants and toddlers with no-added salt, in line with recommendations by the American Academy of Pediatrics [AAP] Committee on Nutrition, 2014. These efforts, along with additional commitments and support from other food manufacturers to lower sodium in their products, can support healthy levels of sodium intake among infants and toddlers.

## Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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M.E.C., J.M., and J.P.G. designed the research; Porter Novelli conducted the survey and provided the data; K.A.J. and L.Z. analyzed the data; K.A.J. wrote the paper; R.M., M.E.C., L.Z., J.P.G. and J.M. edited and provided feedback; K.A.J. and M.E.C. have primary responsibility for final content. All authors have read and approved the final manuscript. Questions utilized from Porter Novelli were funded in part by the Division for Heart Disease and Stroke Prevention, Centers for Disease Control and Prevention (CDC). This work was supported by an appointment

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Prevalence and adjusted odds ratios of agreement that it is important for baby and toddler foods to be low in sodium, N = 6378.<sup>a</sup>

Table 1

Characteristic	N	Agreement with importance of baby and toddler foods being low in sodium % <sup>b</sup>	95% CI	AOR <sup>c</sup>	95% CI
Sex					
Male	1741	61.7	59.3–64.2	–	Ref
Female	2602	74.0	71.9–76.1	1.8*	1.5–2.1
Age, y					
18–34	837	65.8	62.5–69.1	–	Ref
35–44	881	66.1	62.2–69.9	1.0	0.8–1.3
45–54	1193	67.4	64.0–70.8	1.1	0.9–1.3
55–64	713	66.6	62.7–70.5	1.1	0.8–1.3
65+	719	75.7	72.2–79.1	1.6*	1.3–2.1
Race/ethnicity					
White, non-Hispanic	3187	67.0	65.2–68.8	–	Ref
Black, non-Hispanic	435	72.3	67.1–77.5	1.3	1.0–1.7
Other, non-Hispanic	157	78.2	70.9–85.5	2.0*	1.3–3.0
Hispanic	457	65.0	59.8–70.1	0.9	0.7–1.2
2 + Race, non-Hispanic <sup>d</sup>	107	72.2	62.4–82.0	1.3	0.8–2.1
Education					
Less than high school	250	66.0	60.0–71.9	0.9	0.6–1.2
High school	1028	69.3	66.2–72.3	1.0	0.8–1.2
Some college	1406	66.5	63.7–69.3	0.9	0.8–1.1
Bachelor's degree or higher	1659	69.1	66.4–71.7	–	Ref
Household income					
< \$25 000	682	67.1	63.0–71.2	0.9	0.7–1.2
\$25 000–\$39 999	615	70.6	66.4–74.7	1.1	0.8–1.3
\$40 000–\$59 999	746	67.9	63.9–71.8	1.0	0.8–1.2
\$60 000	2300	67.6	65.4–69.8	–	Ref
Region of residence					

Characteristic	N	Agreement with importance of baby and toddler foods being low in sodium % <sup>a</sup>	95% CI	AOR <sup>c</sup>	95% CI
Northeast	801	70.1	66.5–73.7	1.0	0.8–1.2
Midwest	1108	65.9	62.6–69.2	0.9	0.7–1.1
South	1462	69.6	66.9–72.3	–	Ref
West	972	65.8	62.3–69.4	0.8	0.7–1.0
BMI <sup>e</sup>					
<25	1591	67.8	65.1–70.5	–	Ref
25–30	1473	67.3	64.5–70.2	1.1	0.9–1.3
30	1279	69.1	66.1–72.0	1.1	0.9–1.4
Are you a parent of at least 1 child under the age of 2 years?					
Yes	316	82.3	77.1–87.4	2.8*	1.9–4.2
No	4027	66.6	65.0–68.3	–	Ref
Self-reported high blood pressure					
Yes	1145	72.9	69.8–76.0	1.3*	1.1–1.6
No	3198	66.3	64.4–68.2	–	Ref
Self-reported high cholesterol					
Yes	1033	74.6	71.5–77.7	1.4*	1.2–1.7
No	3310	66.1	64.2–68.0	–	Ref
Cardiovascular disease history					
Yes	70	73.6	61.0–86.2	1.3	0.7–2.4
No	4273	67.9	66.3–69.5	–	Ref
How harmful to your health is eating too much salt/sodium?					
Not at all harmful	56	30.5	21.7–39.4	–	Ref
A little harmful	802	53.1	49.5–56.6	2.6*	1.7–4.0
Somewhat harmful	1779	67.7	65.1–70.3	4.7*	3.1–7.2
Very harmful	1706	82.7	80.4–85.0	10.6*	6.8–16.4
Are you currently watching or reducing your sodium/salt intake?					
Yes	2133	79.3	77.2–81.5	2.7*	2.3–3.2
No	2210	58.8	56.6–61.1	–	Ref

Note. AOR, adjusted odds ratio; BMI, body mass index; CI, confidence interval; Ref, reference category;

\* indicates  $p$ -value  $< 0.05$ .

<sup>a</sup> N is unweighted. All other values are weighted by sex, age, household income, race/ethnicity, household size, education, census region, metro status, and prior internet access to match the 2011 Current Population Survey (United States Census Bureau, 2012).

<sup>b</sup> Weighted proportion of respondents who *somewhat* agree and *strongly* agree (combined) with "It is important for baby and toddler foods to be low in sodium". Not shown is the proportion of respondents with combined *neither agree nor disagree*, *somewhat disagree* and *strongly disagree* response.

<sup>c</sup> Odds ratio of agreeing (combined *somewhat* and *strongly agree*) vs. everyone else (combined *neither agree nor disagree*, *somewhat disagree*, and *strongly disagree*) adjusted for age, sex, and race/ethnicity.

<sup>d</sup> Two or more non-Hispanic races/ethnicities.

<sup>e</sup> BMI  $< 25$  includes underweight respondents ( $< 18.5$ ); however, percent agreement was not significantly different for individuals who are underweight (N = 81) compared to average weight respondents.

Prevalence of agreement that it is important for baby and toddler foods to be low in sodium among parents with at least one child under the age of two years, N = 390.<sup>a</sup>

**Table 2**

Characteristic	N	Agree (%) <sup>b</sup>	95% CI	AOR <sup>c</sup>	95% CI
Overall	390	82.3	77.1–87.4	–	–
Sex					
Male	155	78.6	70.3–86.9	–	Ref
Female	235	85.4	79.1–91.7	1.6	0.8–3.1
Age, y					
18–34	244	82.8	76.5–89.0	–	Ref
35+	146	81.1	71.9–90.2	1.0	0.5–2.0
Race/ethnicity					
White, non-hispanic	274	83.4	77.5–89.3	–	Ref
Black, non-hispanic	30	79.1	57.1–100.0	0.7	0.2–3.0
Other, non-hispanic	22	73.2	49.2–97.3	0.6	0.2–2.1
Hispanic	64	83.4	71.9–94.8	0.9	0.4–2.3
Education					
High school	105	83.9	74.6–93.2	0.9	0.4–2.2
Some college	122	76.8	65.5–88.1	0.5	0.2–1.2
Bachelor's degree or higher	163	84.3	77.3–91.2	–	Ref
Household income					
<\$60 000	211	81.4	74.2–88.7	0.8	0.4–1.8
\$60 000	179	83.1	75.8–90.5	–	Ref
Region of residence					
Northeast	53	86.2	76.4–96.1	1.8	0.5–5.7
Midwest	94	78.6	66.8–90.3	0.9	0.3–2.2
South	153	80.4	71.7–89.0	–	Ref
West	90	86.5	76.6–96.4	1.7	0.6–4.4
BMI <sup>d</sup>					
<25	155	87.5	80.4–94.6	–	Ref

Characteristic	N	“It is important for baby and toddler foods to be low in sodium” Agree (%) <sup>b</sup>	95% CI	AOR <sup>c</sup>	95% CI
25–30	127	79.0	69.5–88.4	0.6	0.2–1.5
30	108	78.8	68.2–89.5	0.5	0.2–1.3
Self-reported high blood pressure					
Yes	30	83.8	63.7–100.0	1.2	0.3–4.9
No	360	82.1	76.8–87.5	–	Ref
Self-reported high cholesterol					
Yes	31	98.7	96.0–100.0	21.3 <sup>*</sup>	2.6–174.0
No	359	80.7	75.1–86.3	–	Ref
How harmful to your health is eating too much salt/sodium?					
Not at all harmful	15	76.8	52.5–100.0	–	Ref
A little harmful	121	75.9	65.5–86.3	1.0	0.2–4.7
Somewhat harmful	157	81.4	72.8–89.9	1.4	0.3–7.1
Very harmful	97	91.8	84.8–98.9	3.9	0.7–21.4
Are you currently watching or reducing your sodium/salt intake?					
Yes	108	95.1	89.5–100.0	6.8 <sup>*</sup>	2.2–20.8
No	282	77.3	70.7–83.9	–	Ref

Note. AOR, adjusted odds ratio; BMI, body mass index; CI, confidence interval; Ref, reference category;

<sup>\*</sup> indicates  $p$ -value < 0.05. Cardiovascular disease had a sample size < 5 in subcategory, data is not presented.

<sup>a</sup> Percentages are weighted by sex, age, household income, race/ethnicity, household size, education, census region, metro status, and prior internet access to match the 2011 Current Population Survey (United States Census Bureau, 2012).

<sup>b</sup> Weighted proportion of parents with at least one child under the age of two years who *somehow* agree and *strongly* agree (combined) with “It is important for baby and toddler foods to be low in sodium”. Not shown is the proportion of respondents with combined *neutral*, *somewhat disagree* and *strongly disagree* response.

<sup>c</sup> Adjusted odds ratio of agreeing (combined *somewhat* and *strongly agree*) vs. everyone else (combined *neither agree nor disagree*, *somewhat disagree*, and *strongly disagree*) adjusting for age, sex, and race/ethnicity.

<sup>d</sup> BMI < 25 includes underweight respondents (<18.5); however, percent agreement was not significantly different for individuals who are underweight (N = 4) compared to average weight respondents.