

## Online supplemental Material

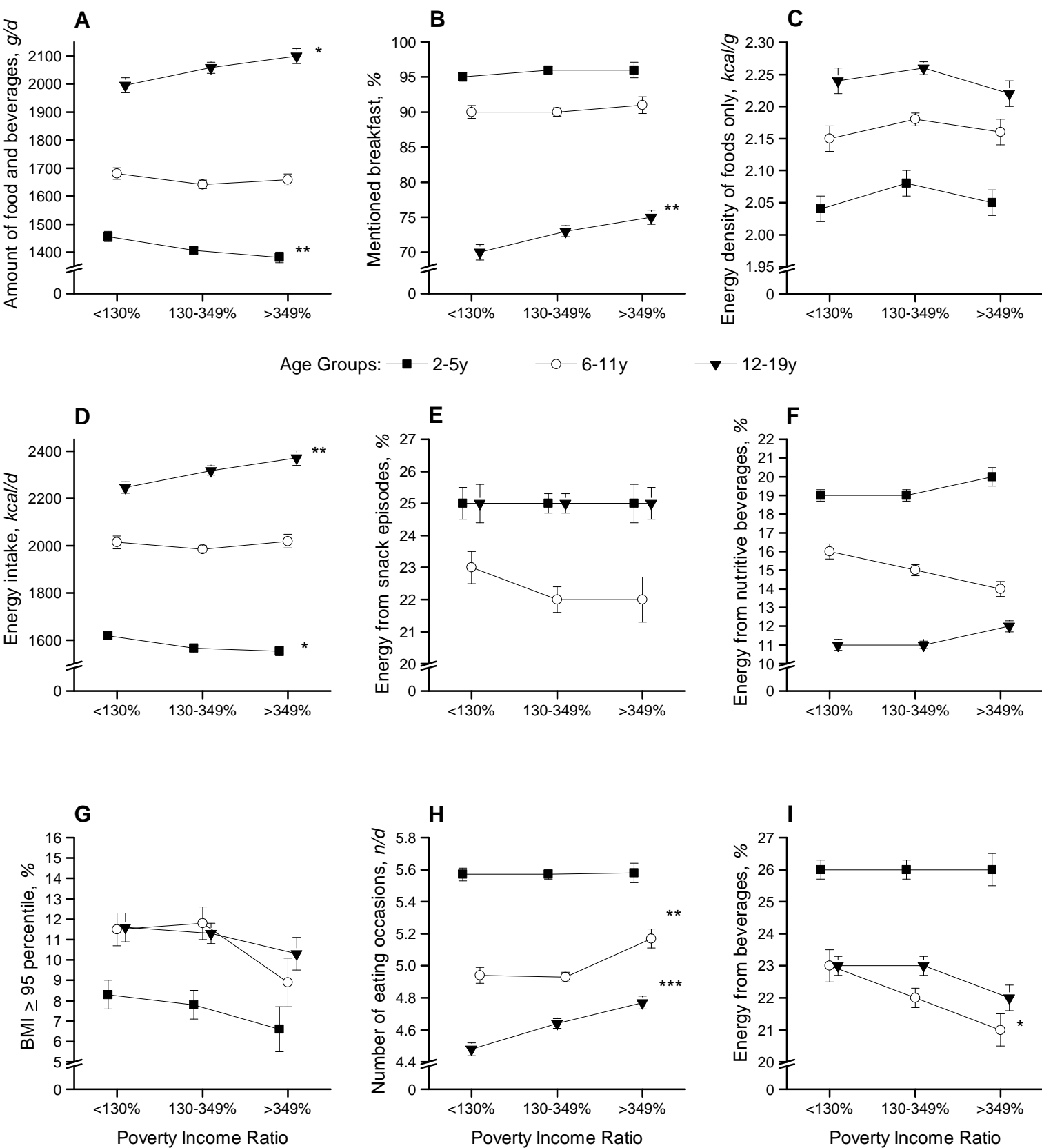
### Supplemental Figure 1, continued

Values are adjusted means or percentages  $\pm$  SE from multivariable linear or logistic regression models that included each dietary attribute or BMI as a continuous or dichotomous dependent variable. Separate models were run for each age group and included age, sex, race-ethnicity, survey cycle, month of MEC exam, weekday of recalled intake, family PIR, education of household head, household size, and BMI-sex-age-percentile. *n* for models with complete covariate information: 2-5 y (11955); 6-11 y (11016); 12-19 y (16223).

Models for BMI excluded the month of MEC exam, day of recalled intake, and household size.

The data points for the ages 2-5 and 12-19 years on the graphs are shifted slightly to the left and right, respectively, to avoid overlapping.

Asterisks are used to indicate *P* value ranges for education trend:  $P < 0.05$  to  $0.01 = *$ ;  $P < 0.01$  to  $0.001 = **$ ;  $P < 0.001 = ***$



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Supplemental Table 1 Main effect<sup>1</sup> of survey year for dietary and meal behaviors in children and adolescents 2-19 y of age: NHANES 1971-74 to 2003-2008.

Age group	NHANES 1971-1974	NHANES 1976-1980	NHANES 1988-1994	NHANES 1999-2002	NHANES 2003-2008	Survey effect <i>P</i> - trend
<b>BMI<sup>2</sup> ≥95 percentile for gender and age, %</b>						
2-5 y	5.0±0.7	5.0±0.6	6.9±1.3	10.8±1.4	10.4±1.4	<0.0001 ↑ <sup>3</sup>
6-11 y	4.1±0.5	6.4±0.6	11.4±1.1	16.2±1.3	17.4±1.3	<0.0001 ↑
12-19 y	5.7±0.6	4.7±0.4	10.6±0.9	17.2±0.9	19.0±1.3	<0.0001 ↑
<b>24-h energy intake, kcal/d</b>						
2-5 y	1610±19	1530±13	1550±18	1620±22	1590±17	0.3
6-11 y	2060±25	1970±21	1970±29	2000±36	2000±22	0.5
12-19 y	2300±31	2250±38	2420±30	2320±30	2270±26	0.6
<b>Amount of foods and beverages in the 24-h recall, g/d</b>						
2-5 y	1430±16	1330±14	1410±14	1470±29	1440±19	0.002 ↑
6-11 y	1720±22	1650±21	1650±25	1650±35	1620±27	0.06
12-19 y	1990±29	1960±29	2150±32	2120±37	2050±37	0.003 ↑
<b>24-h energy from all beverages, %</b>						
2-5 y	28±0.3	27±0.4	24±0.4	26±0.5	25±0.4	<0.0001 ↓
6-11 y	25±0.3	25±0.3	21±0.5	22±0.6	20±0.4	<0.0001 ↓
12-19 y	24±0.3	24±0.4	22±0.4	24±0.6	21±0.3	0.0003 ↓
<b>24-h energy from nutritive beverages, %</b>						
2-5 y	22±0.3	20±0.4	18±0.3	18±0.5	19±0.4	<0.0001 ↓
6-11 y	20±0.4	19±0.4	13±0.5	12±0.6	12±0.3	<0.0001 ↓
12-19 y	16±0.4	14±0.4	9±0.3	9±0.3	8±0.4	<0.0001 ↓
<b>Energy density of foods only, kcal/g</b>						
2-5 y	2.07±0.02	2.08±0.01	2.00±0.01	2.08±0.03	2.07±0.03	0.7
6-11 y	2.07±0.01	2.12±0.02	2.13±0.02	2.24±0.03	2.24±0.02	<0.0001 ↑
12-19 y	2.15±0.02	2.19±0.01	2.28±0.03	2.30±0.03	2.29±0.02	<0.0001 ↑
<b>Number of eating occasions in the 24-h recall, n/d</b>						
2-5 y	5.4±0.05	5.3±0.04	5.6±0.05	5.7±0.07	5.9±0.06	<0.0001 ↑
6-11 y	4.9±0.05	4.9±0.05	4.8±0.07	5.0±0.06	5.2±0.05	<0.0001 ↑
12-19 y	4.7±0.04	4.5±0.04	4.4±0.04	4.7±0.04	4.7±0.04	0.5
<b>24-h energy intake from snack episodes, %</b>						
2-5 y	24.3±0.4	23.1±0.4	25.3±0.4	24.9±0.9	26.3±0.5	0.001 ↑
6-11 y	20.5±0.5	21.0±0.5	22.0±0.5	23.3±0.6	24.9±0.6	<0.0001 ↑
12-19 y	24.5±0.5	24.6±0.5	27.0±0.9	24.9±0.5	24.1±0.5	0.9

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Mentioned breakfast in the 24-h recall, %

2-5 y	97±0.6	97±0.4	95±0.8	95±0.8	96±0.6	0.05
6-11 y	93±0.7	92±0.6	90±0.9	87±1.1	87±1.3	<0.0001 ↓
12-19 y	76±1.4	77±1.2	71±1.6	68±1.2	70±1.3	<0.0001 ↓

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<sup>1</sup>Values are adjusted means ± SE from multivariable linear or logistic regression models that included each dietary or BMI variable as a continuous or dichotomous dependent. Separate models were run for each age group and included age (continuous), gender, race-ethnicity (NHW, NHB, all others), Survey (NHANES I-1971-74, NHANES II-1976-80, NHANES III-1988-94, NHANES 1999-2002, and NHANES 2003-2008), month of MEC exam (Nov-April, May-Oct), weekday of recalled intake (Monday-Thursday, Friday-Sunday), family PIR (<130, 130-185, ≥350%), education of household head (<12, 12, some college, ≥college), household size (≤2, 3-4, ≥5), and BMI-sex-age-percentile (<85<sup>th</sup>, 85-<95<sup>th</sup>, ≥95<sup>th</sup>). Survey as a trend used the midpoint year of the survey cycle as a scored trend variable. *n* for models with complete covariate information: 2-5 y (11955); 6-11 y (11016); 12-19 y (16223).

<sup>2</sup>Models for BMI excluded month of MEC exam, weekday of recalled intake, and household size.

<sup>3</sup>The direction of the arrow suggests an upward (↑) or a downward (↓) trend.