

Consumption of Low-calorie Sweeteners in the United States 2009-12

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BACKGROUND

- Low-calorie sweeteners (LCS) are used to replace added sugar with no or few calories in some food and beverage products.
- Consumption of LCS increased rapidly from 1999 (27% in adults; 9% in children) to 2008 (32% in adults; 15% in children), but little is known about their consumption in recent years.

OBJECTIVE

To examine the prevalence of overall LCS consumption and LCS in beverages, foods and packets across sociodemographic groups

METHODS

Study population

16,942 adults (≥ 18 y, n=11,098) and children (2-17 y, n=5,844) from two cycles of the National Health and Nutrition Examination Survey (NHANES), 2009-10 and 2011-12.

LCS assessment

- Two 24-hr dietary recalls for each participant were used.
- Foods and beverages containing LCS were identified using food descriptions provided in the Food and Nutrient Database for Dietary Studies (FNDDS).
- Food codes containing the terms “diet,” “dietetic,” “low-calorie,” “no sugar added,” “light,” “sugar-free,” “sugar substitute,” “low-calorie sweetener,” or “no-calorie sweetener” were confirmed for the presence of LCS, and then categorized as LCS beverages, LCS foods and LCS packets.

Sociodemographic groups

- Sex
- Age groups: 2-5, 6-11, 12-17, 18-34, 35-54, 55-74, ≥ 75 y
- Socioeconomic status: determined by tertiles of poverty to income ratio
- Race/Ethnicity: white, black, Hispanic, other races
- Weight status: based on body mass index (BMI)

Statistical analysis

- STATA frequency procedures for complex survey design was used with sample weights to generate national level estimates.
- F-test was used to compare LCS consumption across sociodemographic groups.



Diet Beverages



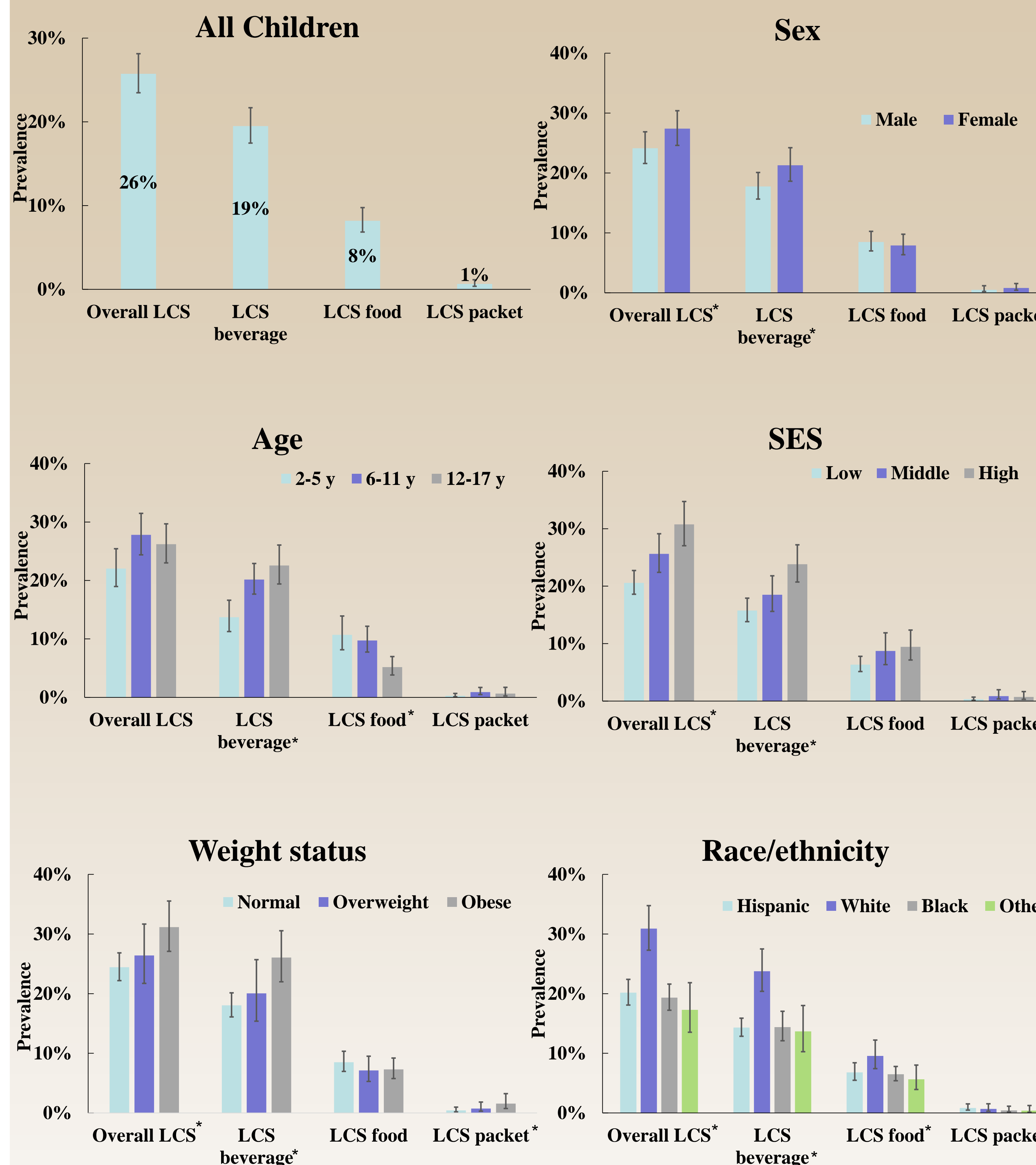
Reduced Sugar/Sugar-Free Foods and Condiments



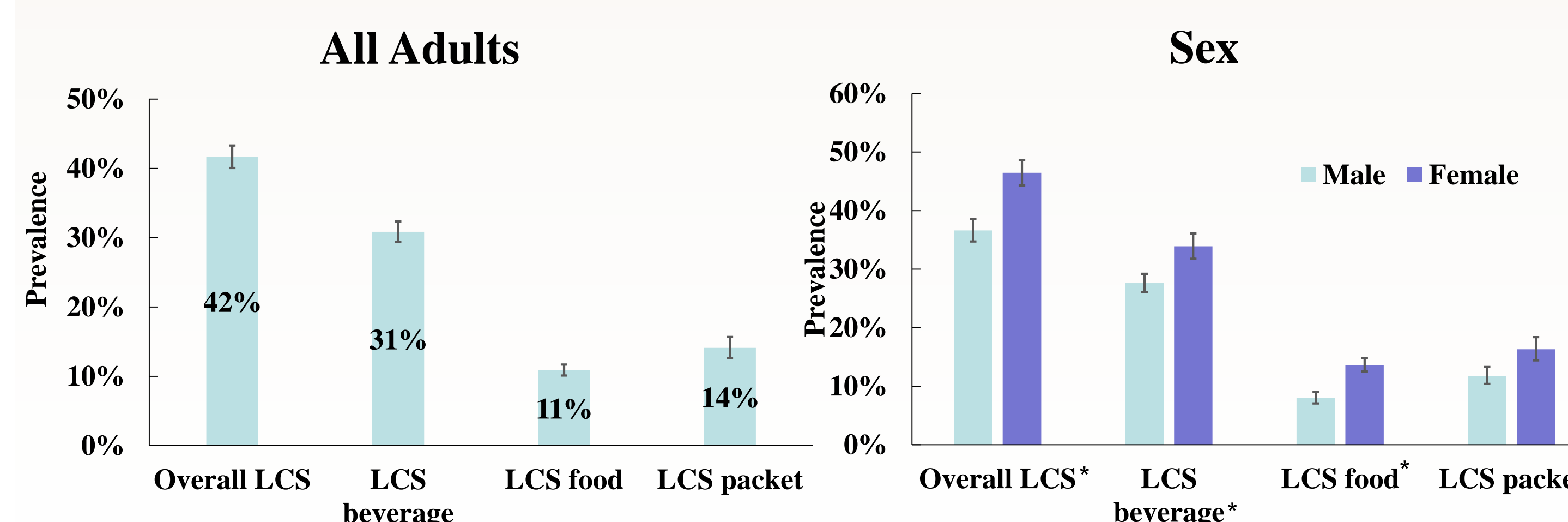
Tabletop Packets

RESULTS

Children

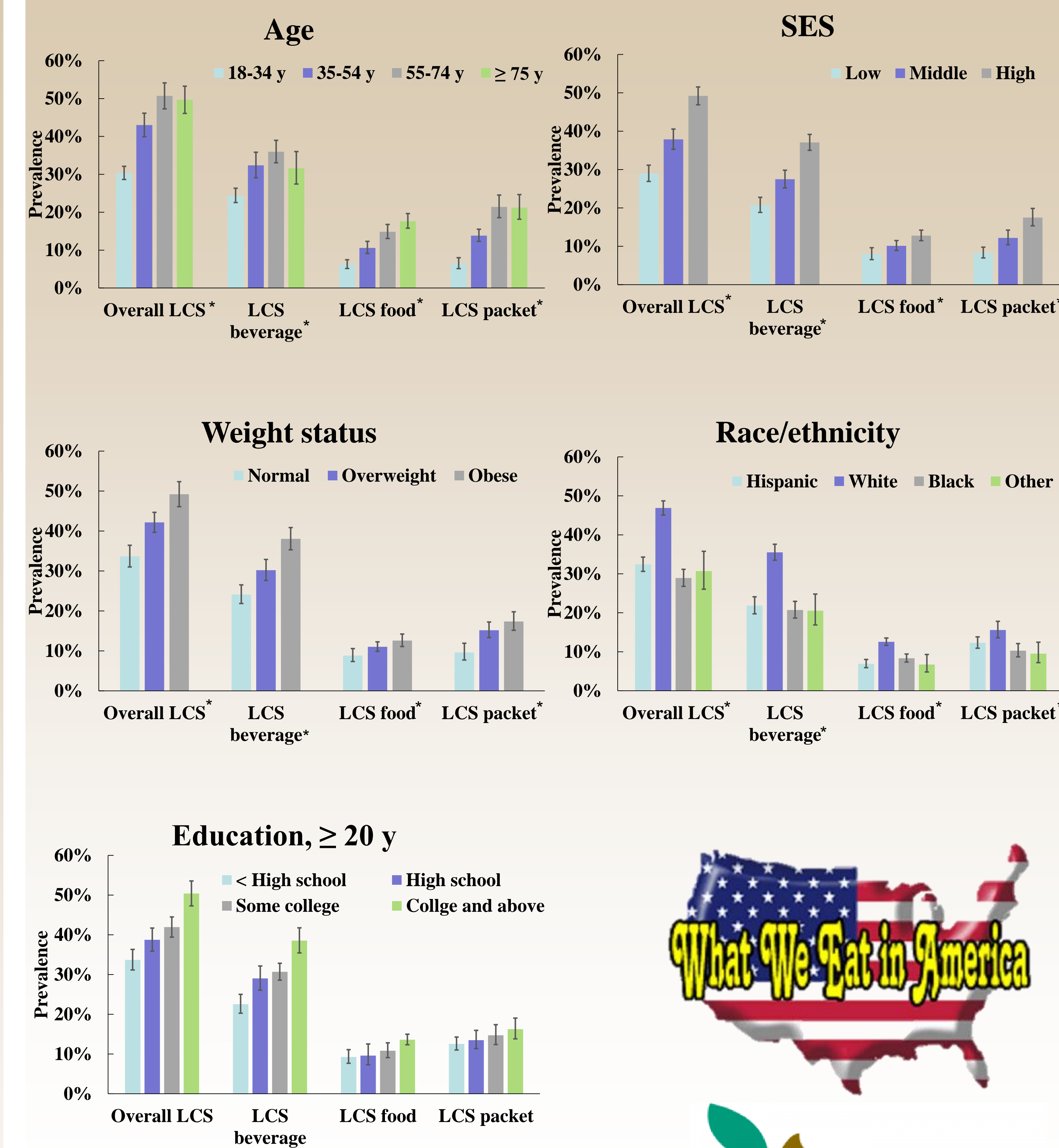


Adults



RESULTS, CONTINUED

Adults, cont.



* p<0.05



CONCLUSION

- Consumption of LCS increased between 1999-2000 and 2009-2012 from 27% to 42% among adults, and from 9% to 26% among children.
- The majority of reported LCS consumption was from LCS beverages.
- Individuals who were female, older, with higher SES, overweight or obese, white, and more educated tended to have higher consumption of LCS
- True in both adults and children.