



California Teens Reversing Obesity Trend but Substantial Disparities Remain: Examining Risk Factors for Obesity Among California Adolescents



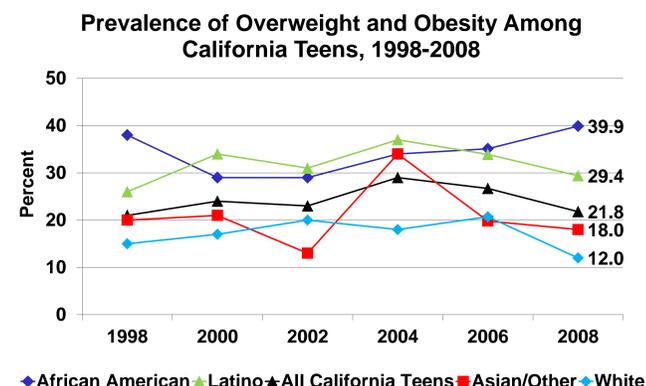
Carolyn D. Kitzmann¹, MA; Sharon Sugerman¹, MS, RD, FADA; Mark Hudes², PhD

¹Network for a Healthy California, California Department of Public Health; ²Center for Weight and Health, UC Berkeley

Background

- The California Teen Eating, Exercise and Nutrition Survey (CalTEENS) has provided statewide surveillance of adolescent (12-17 years old) BMI, diet, physical activity, and related factors biennially since 1998.
- This poster highlights trends (1998-2008) and the current status of overweight and obesity in California's adolescents with a focus on those teens at the highest risk of obesity.

Trends:



- From 1998 to 2004, overweight and obesity increased among California teens, from 21.3% to 28.6% (p<.001). Since 2004, this trend appears to be reversing, and as of 2008 prevalence of overweight and obesity in California teens had returned to 2004 levels, representing a significant decline from the 2004 peak (p<.001).
- In 2008, African American and Latino youth had significantly higher prevalence of overweight and obesity than other teens.

Summary

- Prevalence of overweight and obesity among teens in California has declined from 2004 to 2008, but disparities remain.
- Race/ethnicity and poverty were among the most significant predictors of overweight in California teens.
- Smoking and screen time were associated with overweight while eating breakfast may protect against it.
- Parental factors were found to be significant even in this adolescent sample.

Methods

- CalTEENS uses Computer-Assisted Telephone Interviews in English and Spanish.
- Random digit dial is used to sample the general population. Beginning in 2006, the Medi-Cal Eligibility Data System Food Stamp Central Database has been used to over-sample low-income populations. In 2008, the total sample size was 1,331 respondents.
- Data are weighted using California population data to provide a data set representative of a statewide sample.

Regression Analysis Methods

- This study used bivariate analyses to identify potential predictors of adolescent overweight. Variables were selected for inclusion into the regression model based on a significance of p<.10.
- A simultaneous logistic regression was computed using SAS to predict the likelihood of teens being either overweight/obese¹ or not overweight/obese.

¹ Calculated using the CDC 2000 reference data by age and gender for BMI. Overweight = BMI ≥ 85th < 95th percentile. Obese = BMI ≥ 95th percentile. BMI was calculated using the equation: weight (kg) / height (m²).

Predictors:

Predictors of Overweight and Obesity¹ in California Teens
Simultaneous Logistic Regression
(n=1,052)

	Coeff.	p
<i>Constant</i>	-2.364	***
<i>Explanatory Variables</i>		
Race/Ethnicity		*
White	reference	
African American	0.996	**
Latino	0.470	*
Asian	0.386	ns
Household Poverty/SNAP Status		***
SNAP participant (≤ 130% FPL)	0.953	***
Likely eligible for SNAP (≤ 130% FPL, no SNAP)	0.323	ns
Not eligible for SNAP (> 130% FPL)	reference	
Age		*
12-13	reference	
14-15	-0.046	ns
16-17	0.494	*
Eating breakfast	-0.798	***
Parental limits on snack food	0.674	**
Exercising with family	0.525	**
Smoking	0.767	*
Screen time (TV/video games)	0.002	*

¹ Calculated using the CDC 2000 reference data by age and gender for BMI. Overweight/Obese = BMI ≥ 85th percentile. Body Mass Index (BMI) was calculated using the equation: weight (kg) / height (m²).
* p < .05, ** p < .01, *** p < .001.
SNAP = Supplemental Food Assistance Program, formerly Food Stamps
FPL = Federal Poverty Level

Increased risk was associated with:

- Minority status (African American or Latino)
- SNAP (formerly Food Stamp) participation
- Older age (16-17 year olds)
- Parents limiting snack food
- Exercising with family
- Smoking
- Increased screen time

Decreased risk was associated with:

- Eating breakfast

Many additional variables were examined in this model and were not significant, such as: consumption of fruits and vegetables, sugar sweetened beverages; fast food; physical activity; school food environment; and psychosocial factors.

Conclusions

- Evidence of an overall decline in adolescent overweight and obesity is promising. Ongoing surveillance will track whether the trend continues.
- Our regression model highlights the importance of ethnicity and poverty in the obesity epidemic, while many dietary and physical activity behaviors were not significant after other variables were considered. Although not shown here, our data reveal ethnic and poverty disparities across a wide range of obesogenic behaviors, which may account for this result.

Contact Information

carolyn.kitzmann@cdph.ca.gov

(916) 449-5547
1616 Capitol Avenue
PO Box 997377, MS 7204
Sacramento, CA 95899-7377

Childhood Obesity Conference, San Diego, California, June 2011