

Fruit and Vegetable Consumption Among Food Insecure California Adults

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OBJECTIVE

This study examines the relationship between food security status and fruit and vegetable consumption of California adults ($\geq 18y$).

BACKGROUND

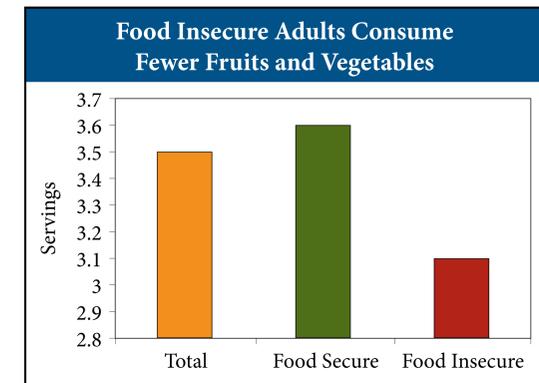
Food insecurity (FI) is the lack of “consistent, dependable access to enough food for active, healthy living”. It remains a serious public health concern. The Cancer Prevention and Nutrition Section (CPNS) provides nutrition education to low income households, the population affected by FI. However, little is known about dietary habits, specifically fruit and vegetable (FV) consumption of food insecure persons. This information would help to inform and evaluate the effect of the social marketing and program efforts of CPNS.



METHODS

- 2005 California Behavioral Risk Factor Surveillance System data
- Data were weighted to the 2000 California census population
- Preliminary Analyses
 - Frequencies
 - * Mean serving of FV
 - Bi-variate analyses
 - * Food security status vs. eat 5 or more a day (Chi-square)
 - * FSP participation vs. mean FV servings (t-test)
 - Logistic regression models controlling for pertinent determinants

RESULTS



	Total	Food Secure	Food Insecure	p
Servings of FV (mean)	3.5	3.6	3.1	<.001
Ate 5+ Servings of FV (%)	28	29	22	<.001

[1] Comparisons were made with t-test for continuous variables and Chi-square goodness of fit test for categorical variables

FV=Fruits and Vegetables

Variables	Model 1		Model 2	
	b	p	b	p
Intercept	-0.872	<.0001	-0.900	<.0001
Food Insecure				
No	-0.387	<.0001	-0.241	0.016
Education (compared with college grad)				
Less than high school	----	----	-0.786	<.0001
High school grad/GED	----	----	-0.850	<.0001
Some college/ tech school	----	----	-0.632	<.0001
Sex (compared with male)				
Female	----	----	0.481	<.0001
Race (compared with Caucasian/Non-Hispanic)				
African American	----	----	0.465	0.004
Hispanic	----	----	0.219	0.019
Other	----	----	0.214	0.158
Age				
25-34	----	----	0.243	0.055
35-44	----	----	-0.027	0.835
45-54	----	----	0.255	0.052
55-64	----	----	0.217	0.140
65+	----	----	0.624	<.0001

DISCUSSION

Fruit and Vegetable Consumption:

- FI adults ate significantly fewer FV than adults who were not FI ($p<.001$).
- FI adults were also significantly less likely to meet the then recommended 5 or more servings of FV/ day ($p<.001$).

Ate 5 or More Servings:

Regression Models - (Base: food secure, college graduate, male, Caucasian/non-Hispanic, age 18-24):

Model 1: FI was negatively associated with eating 5 or more servings of FV.

Model 2: After adding education, sex, race/ethnicity, and age FI was still negatively associated with meeting the then recommended 5 or more servings of FV/day. However, this does not imply causality.

* Important to note that these models only explain a small portion of the variance

CONCLUSION

Respondents who were FI were significantly less likely to report eating five or more servings of FV than those who were food secure after controlling for pertinent factors. Nutrition interventions aimed at increasing FV consumption should address issues of FI and should seek out populations likely to be food insecure. However, food security is a multifaceted problem. Therefore, further, more complex analyses are needed to fully assess the relationship between FV consumption and food security.

