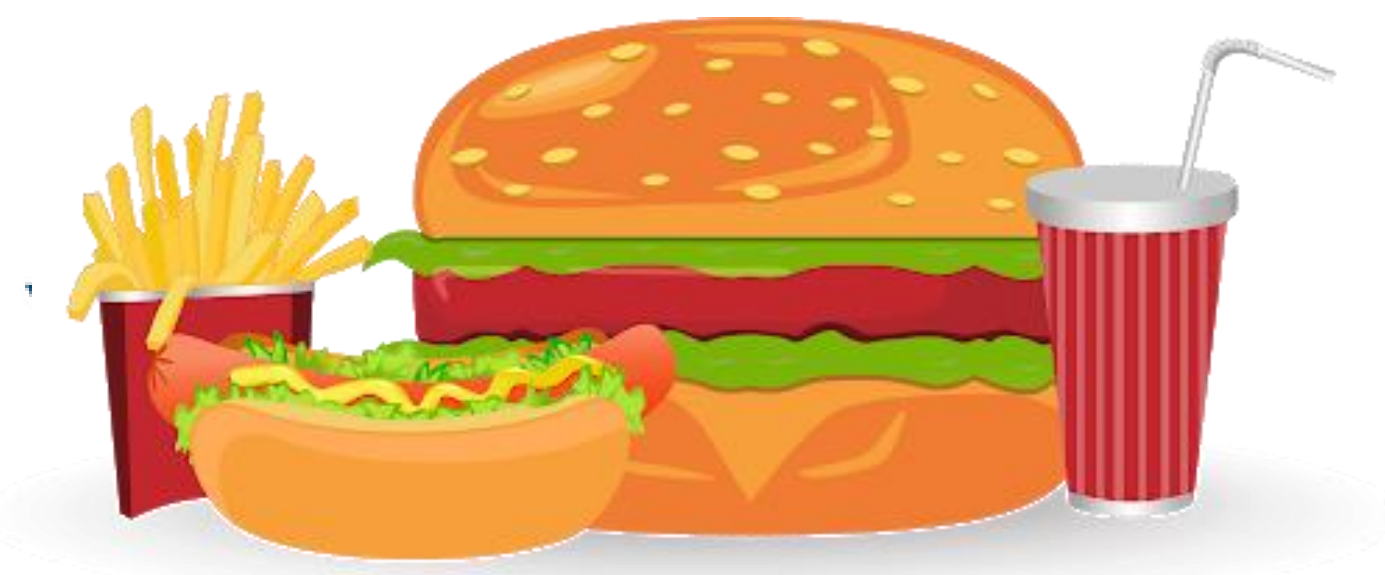


Evaluation of Food Spending in Association with Chronic Disease Control



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Background

- Diet is a common therapy for disease control where obesity is a known risk factor including hypertension, cardiovascular disease and type 2 diabetes.
- Obesity continues to be on the rise
- Understanding food environments and food preparations is a vital component in evaluating consumer behavior
- Several initiatives have been implemented to help patients make healthier lifestyle choices including food labels and food pricing initiatives

Purpose

- This study aims to determine how those with chronic disease spends money on various food subtypes.

Methods

- **Study Design:** Secondary data analysis
- **Setting:** National Health and Nutrition Examination Survey (NHANES) 2013-2016
- **Participants:** Adults 20 years and older who answered the consumer behavior questionnaire
- **Outcomes:** Selected patients were studied concerning spending habits at grocery stores, eating out (restaurants and carry out) and other food environments (cafeterias and vending machines). Money spent was categorized into percent of total food expenditure
- **Statistical analysis:** Patients' spending was compared by chi-squared analysis to determine significance.



Results

Table 1. Demographics

Gender	
Male	48.40%
Female	51.60%
Race	
Non-Hispanic White	66.70%
Non-Hispanic Black	10.30%
Hispanic	14.60%
Non-Hispanic Asian	5.30%
Other	3.20%
Education Level	
Did not finish high school	14.50%
High school grad/GED	21.50%
Some College	32.10%
College Grad or above	31.80%
Marital Status	
Married	67.80%
Not Married	43.20%
People in the Household	
1	12.30%
2	32.70%
3	17.60%
4	17.70%
5	11.40%
6	4.00%
7+	4.30%
Children in household	42.60%
No children in the household	58.40%
House Income	
Patient considered in poverty	14.90%

Table 2. Medical Demographics

Diabetes	
Known Diabetes	9.70%
Insulin	28.70%
Oral	72.00%
A1c Not at goal	51.50%
A1c at goal	49.50%
Prediabetes	
Known Prediabetes	6.81%
Feel that they could be at risk for diabetes	26.60%
Hypertension	
Known Hypertension	32.90%
Taking medications	86.20%
Hyperlipidemia	
Known Hyperlipidemia	34.10%
Taking medications	75.40%
BMI	
Normal	29.90%
Overweight	31.90%
Obesity	29.20%
Morbid Obesity	8.90%

Table 3. Diet Demographics

Spending	
Average household spends on food	\$766.77
Mean % spend on groceries	62.20%
Mean % spend on eating out + carry out	24.30%
Mean % spent on other (vending machines, bodega, chips)	13.50%
How much money spent on household member for food	\$282.82
How healthy do you think your diet is?	
Good diet (Excellent + very good + good)	73.30%
Bad diet (fair, poor)	27.70%
Past 7 days, eaten food prepared away from home	8.1

Conclusions

- There was no statistically significant difference in percent of food money spent at grocery stores and other food environments when comparing patients with controlled vs uncontrolled diabetes
- There was no statistically significant difference in percent of food money spent at grocery stores and other food environments when comparing patients with controlled vs uncontrolled hypertension
- There was no statistically significant difference in percent of food money spent at grocery stores and other food environments when comparing patients who are at risk for diabetes vs those who were not at risk for diabetes
- There was no statistically significant difference in percent of food money spent at grocery stores and other food environments when comparing patients with prediabetes vs patients without prediabetes
- There was no statistically significant difference in spending patterns in association with obesity
- A larger proportion of participants in the lowest quartile of grocery spending reported feeling at risk for diabetes mellitus compared to those in the highest quartile (30.8% vs 21.5%, p=0.005).
- More research is needed to determine what these patients purchase when they buy food at grocery stores and at restaurants

