Short report

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The feasibility and utility of grocery receipt analyses for dietary assessment

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Abstract

Objective

To establish the feasibility and utility of a simple data collection methodology for dietary assessment.

Design

Using a cross-sectional design, trained data collectors approached adults (~20 – 40 years of age) at local grocery stores and asked whether they would volunteer their grocery receipts and answer a few questions for a small stipend ($1).

Methods

The grocery data were divided into 3 categories: "fats, oils, and sweets," "processed foods," and "low-fat/low-calorie substitutions" as a percentage of the total food purchase price. The questions assessed the shopper's general eating habits (eg, fast-food consumption) and a few demographic characteristics and health aspects (eg, perception of body size).

Statistical Analyses Performed. Descriptive and analytic analyses using non-parametric tests were conducted in SAS.

Results

Forty-eight receipts and questionnaires were collected. Nearly every respondent reported eating fast food at least once per month; 27% ate out once or twice a day. Frequency of fast-food consumption was positively related to perceived body size of the respondent ($p = 0.02$). Overall, 30% of the food purchase price was for fats, oils, sweets, 10% was for processed foods, and almost 6% was for low-fat/low-calorie substitutions. Households where no one was perceived to be overweight spent a smaller proportion of their food budget on fats, oils, and sweets than did households where at least one person was perceived to be overweight ($p = 0.10$); household where the spouse was not perceived to be overweight spent less on fats, oils, and sweets ($p = 0.02$) and more on low-fat/low-calorie substitutions ($p = 0.09$) than did households where the spouse was perceived to be overweight; and,

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respondents who perceived themselves to be overweight spent more on processed foods than did respondents who did not perceive themselves to be overweight (p = 0.06).

Conclusion

This simple dietary assessment method, although global in nature, may be a useful indicator of dietary practices as evidenced by its association with perceived weight status.