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Weekly Food Servings and Participation in Social Programs among Low Income Families

DOUGLAS L. TAREN, PHD, WARREN CLARK, DMIN, MDIV, MARY CHERNESKY, MS, CHE, AND ELISABETH QUIRK, MED

Abstract: Low income families were interviewed to determine factors related to the number of family food servings per week. A multiple regression model indicated that participation in WIC (supplemental food program for women, infants and children), household size, and number of different income sources were associated with more family food servings per week. Number of food servings per week decreased the last week of the month most often in families with younger members. (*Am J Public Health* 1990; 80:1376-1378.)

Introduction

Several studies suggest that family food shortages have increased during the past decade. Populations in the United States that are at risk for these shortages include the elderly, single parent families, and children.¹⁻¹⁰ Other studies have shown that participants of government assistance programs also endure food shortages.¹¹⁻¹⁶ These food shortages follow monthly cycles with the greatest prevalence occurring the last week of the month.¹²

The purpose of this study was to determine if the number of food servings per week could be used to assess food shortages that occur at the end of the month, the number and types of food and income assistance programs used by low income families, and factors associated with the number of family food servings.

Methods

A random sample of 25 percent of family members from six food cooperatives for low income families was selected, with 109 of 114 responding. Fifty families from the Hillsborough County Florida Expanded Food and Nutrition Education Program (EFNEP) who were not participating in the food cooperative were randomly selected to participate in the study; 12 did not participate and 10 more were randomly

selected as substitutes. One home interview was conducted for each family.

The focus of the study was the household. Demographic data were collected with information on participation in 23 food and income assistance programs. The number of family food servings during the past week from a list of 27 food groups was collected. A serving was defined as the preparation and offering of a food group to family members; second and third offerings of the food during the same meal were not counted. A normally distributed additive score for 20 food groups was calculated (mean \pm 1 SD: 24.7 \pm 5.0; Cronbach's alpha of 0.76.)¹⁷ The excluded food groups were oils, salty snacks, candy, sweet baked goods, soda, soup, and coffee.

Frequency analysis using Chi-square and T-tests for means were used to determine the characteristics of the participants of the two programs. Multiple regression was used to determine factors related to the number of food servings. Potential independent variables for the final model were: participation in individual food and income assistance programs; the number of income or food assistance programs; the reference week of the month for the servings; the household size; sex of respondent; the age of the household respondent; participation in the food cooperatives or EFNEP; and an interaction term between program participation and reference week. However, when the final regression model was constructed several variables were not significant and dropped.

Results

The EFNEP households compared with the food cooperative families were younger: (31 vs 51 years); had more single parents (60 percent vs 40 percent); had more children less than 5 years of age (60 percent vs 44 percent); and had lived less time in their present location (42 vs 128 months).

The food and income sources used by these families are presented in Table 1. There was a wide variation in the combination of sources used among all families with no families using the same combination; 39 percent had four or more sources and 13 percent had six or seven sources of income.

The last week of the month was associated with a decrease in the number of food servings per week (mean \pm 1 SEM 22.9 \pm 0.8) compared with the second (26.4 \pm 1.0) and third (26.1 \pm 0.8) week of the month (Figure 1). The variables in the best model (Table 2) to predict the number of food

Address reprint requests to Douglas L. Taren, PhD, Assistant Professor, Department of Community and Family Health, College of Public Health, University of South Florida, 3500 E. Fletcher Avenue, Suite 106, Tampa, FL 33618. Dr. Clark and Ms. Quirk are with Hunger Action, Tampa United Methodist Centers; Ms. Chernesky is with the Hillsborough County Expanded Food and Nutrition Education Program. This paper, submitted to the *Journal* November 13, 1989, was revised and accepted for publication May 31, 1990.

TABLE 1—Food and Income Sources That at Least 10 Percent of the Sample Used^a

	Food Coop N = 109 %	EFNEP N = 48 %
<i>Food Sources</i>		
Food Pantry	13	10
Commodity	74	33
School Breakfast	32	27
School Lunch	32	33
Food Stamps	48	54
WIC	6	21
<i>Income Sources</i>		
AFDC	24	44
SSI	32	10
Social Security	46	10
Wages	15	27

a) Programs that had less than 10% of participating families included soup kitchens, shelters, senior centers, meals on wheels, credit from stores, retirement funds, veterans, and loans.

servings per week were: participation in WIC, number of income assistance programs, number of people in the household, week of the month, and an interaction between the week of the month and participation in either the food cooperatives or EFNEP. This interaction represents a greater decrease in the number of food servings the last week of the month in the EFNEP families compared with the food cooperative families.

Discussion

The results from this study support previous reports that end of the month food shortages occur in low income families.^{12,18-20} The significant interaction term for the number of food servings identified the EFNEP families who were younger, with children, and less established at their current location as one group at particular risk.

Our study also provides evidence that participation in a greater number of income assistance programs was associated with food servings. However, even after controlling for these factors there was a significant decrease in the number of food servings at the end of the month. This implies that current government support may not be sufficient to last an

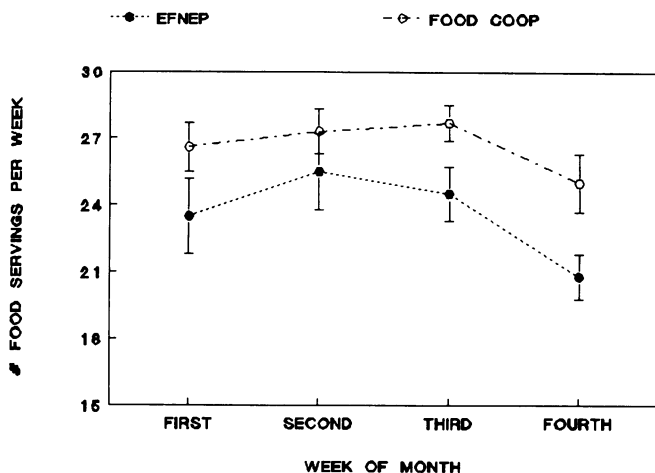


FIGURE 1—Number of Food Servings per Week in Low Income Families (Values represent the adjusted means for the number of servings per week; the vertical bars represent ± 1 standard error.)

TABLE 2—Regression Model to Predict Number of Meals Served in Household during Past Week

	Regression Coefficient	Standard Error
Intercept = 21.7		
WIC ^a	2.3	1.2
Household Size ^b	0.7	0.2
No. Income Sources ^c	1.2	0.4
Week of Month ^d	-0.7	0.4
Week Program ^e Interaction	-0.6	0.1

F = 14.4, $r^2 = 0.33$

a) A value of 1 was given to families who participated and a score of 0 for families who did not participate.

b) Household size was a continuous variable.

c) Number of income sources was a continuous variable.

d) Week of the month was a categorical variable that represented the reference week of the month (first to fourth) for the food servings.

e) The interaction term between families from two programs (food cooperative and EFNEP) and the reference week of the month for food servings.

entire month, especially when the assistance is given one time at the beginning of each month. Several studies of food stamps recipients reported that families use their monthly allotment before the end of the month.* Even families who participate in five different programs have been reported not able to meet the thrifty food plan.²⁰ Nevertheless, even though there is no guarantee that the diets of families participating in federal programs are of high nutritional quality,²¹ assistance programs have been shown to improve the diets of low income families and improve food security.²²

In conclusion, weekly food servings decreased the last week of the month for these families and could be measured using a food frequency questionnaire. This pattern may be related to insufficient funds that occur the last week of the month when financial assistance from government sources are depleted.

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The Buddy Volunteer Commitment in AIDS Care

PRISCILLA VELENTGAS, CHRISTIAN BYNUM, AND SALLY ZIERLER, DRPH

Abstract: Buddy volunteers provide crucial assistance to people with HIV-related illnesses. Based on volunteers' self-administered questionnaires, our study describes the nature of buddy work. Volunteers indicated their satisfaction with both personal performance and buddy program administration. Several factors were associated with volunteer satisfaction. This report is a first attempt to describe this special relationship created in response to the human immunodeficiency virus (HIV) epidemic. (*Am J Public Health* 1990; 80:1378–1380.)

Introduction

Since the onset of the AIDS (acquired immunodeficiency syndrome) epidemic a decade ago, community-based support for people living with AIDS has increased. Formation of community-based organizations to help people with AIDS (PWAs) has taken place across the United States. Services provided range from food distribution to information hotlines to legal and political advocacy. The size of these organizations ranges from a few dozen active volunteers to several hundred.

This report focuses on programs that establish a special relationship between volunteer and client. "Buddy programs" pair a volunteer from the community with a PWA. The buddy volunteer gives his/her client companionship and basic assistance in living with AIDS, and performs tasks

ranging from housekeeping to providing emotional support.^{1,2} Thousands of volunteers across America have entered into this profound commitment which often lasts through the death of the person with AIDS.³

We attempted to investigate the work done by volunteers at one intermediate-sized AIDS project to determine the nature of the contact existing between the volunteers and the project and between the volunteers and their PWA clients.

Methods

Study Populations

To be eligible for this study, women and men must have completed a buddy training program offered by Rhode Island Project/AIDS prior to February 1989. This process included completion of an application and participation in a multiphase training program. One hundred forty-three past and present buddy volunteers were eligible for the study. To be in the study, active and former volunteers returned a self-administered questionnaire. This report is based on information from the 67 volunteers who completed the questionnaire.

Data Collection

An anonymous, self-administered questionnaire was distributed to all active and inactive buddy volunteers. Initially, questionnaires were coded to be matched with the volunteers' initial applications to the program so comparisons could be made between questionnaire and application data. Buddy support group leaders distributed the questionnaires. Inactive volunteers were mailed a questionnaire, along with a cover letter and a self-addressed stamped envelope, to their last known address.

To improve response, a second batch of questionnaires was distributed to group leaders with instructions to mail them back directly to the investigators. Inactive volunteers

From the Department of Community Health, Division of Biology and Medicine, Brown University. Address reprint requests to Sally Zierler, DrPH, Assistant Professor of Medical Science, Box G-A405, Department of Community Health, Brown University, Providence, RI 02912. This paper, submitted to the *Journal* September 15, 1989, was revised and accepted for publication March 7, 1990.