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Nutrition 360

Journal of Nutrition Education and Behavior Article Summary

New Improvements to WIC Food Package...Improvements in Healthy Food Consumption?

The WIC Program is designed to protect the health of low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children who are found to be at nutritional risk by providing food, information about eating healthy and referrals to health care providers. WIC provides a "Special Supplemental Nutrition Program" to buy healthy food for their families.

The objective of this article was to examine the impacts the new changes to the Special Supplemental Nutrition Program had on the purchasing of fruits, vegetables, lower fat milk and whole grains by WIC participants by the WIC package. This study measured the consumption of healthier foods before and after the improvements were made to the WIC food package.

This work is relevant because we have studied the effects of proper nutritional education to specific groups. Low-income women are not always aware of the benefits of eating specific foods and are usually unable to buy the most expensive, healthiest foods for their families. With the help of nutrition education, the opportunities WIC presents its participants and the improvements WIC made to its food package, these lower socio-economic women will be able to buy healthier food for themselves and their families. This article also talks about how it uses the socio-economic model and how the purpose of this study was to examine if the federal WIC policy influenced individual changes in behavior and "recognizing that individual behavior can be determined to a large extent by changes in public policy." Before the new WIC food package was implemented in October of 2009, the package included milk, cheese, eggs, breakfast cereal, 100% juice, and beans or peanut butter. The new WIC package includes vouchers for fresh, canned, or frozen fruits and vegetables, whole wheat bread, corn, or whole wheat tortillas, brown rice, oats, bulgar, or barley. In addition, amounts of milk were reduced and all were required to purchase only lower fat milk.

The study methods included cross-sectional comparison of 9000 participant surveys given to California residents who participated in the WIC program. Surveys were given 6

months before the change to the WIC package and 6 months after the WIC package change. These surveys were taken by the Field Research Corporation and to maintain confidentiality, auto-dialers were utilized and only first names were taken. Thirteen questions were asked of all participants including how often fruits and vegetables, whole grains, milk consumption (and fat content of milk consumed) were eaten in the past week compared to 6 months earlier. ✓

The results of these surveys showed that there was a clear difference in the amount of whole-grains and lower fat milk. Whole grain food consumption increased about 51% compared to before the food package change. For the type of milk, whole-milk drinkers decreased about 60-63% followed by increases in the usual consumption of lower-fat milk by 20%. For increase in consumption of vegetables, there was an increase of about 7.2 percentage points whereas the proportion of families eating more fruit did not significantly change. ✓

In conclusion, I believe that the changes the WIC food package made were very positive ones. Families seemed to increase their intake of whole grain foods, vegetables and lower fat milks. While an increase in fruit consumption could be more highly encouraged, significant improvements have been made. ✓

An improvement that could have been made to the article is going into more detail about participant responses to what specific kinds of vegetables and whole grains they purchased so we could see if there is a variety being bought or very similar purchases being made by WIC participants. ✓

Reference Articles:

The “WIC Food Packages: Time for a Change” was written in 2005 about how all the benefits of WIC but all of the improvements that could definitely be implemented. This article discusses all of the good that WIC has done with promoting the health of low-income families, providing nutrition education, supplemental food and other services to millions of families every year and is one of the largest programs in the US. But, due to the advances in scientific knowledge about nutrition made since WIC was originally started in 1972, a change needed to be made in the food packages to provide healthier food due to the increase in sedentary lifestyles, increase obesity rates and chronic diseases. I believe that this article was referenced in “Revised WIC Food Package Improves Diets of WIC Families” because the opinions of the nutrition community discussed the ideas in this article and led to the WIC food package changes made 2009. The study was based on if the improvements improved healthy eating habits of WIC participants.

✓
Good but
not a journal
article.
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The “Design and Outcomes of a Mothers in Motion Behavioral Intervention Pilot Study” is an article that is based off of another study that discusses a program implemented by WIC called “Mothers in Motion.” This study implemented an education program that consisted of several DVDs that discuss ways to educate participants on healthy eating and exercise. This study was not as successful as the original article as no improvements to the overweight participants seemed to have been made. I believe that this was included in the original article because it shows that sometimes people will not take the initiative themselves and WIC had to be the one to ensure that they gave them as much healthy food as possible instead of leaving it up to them to watch the DVDs and learn for themselves.

✓

References:

Whaley S, Ritchie, L, Spector P, Gomez J. Revised WIC Food Package Improves Diets of WIC Families. *J Nutr Educ Behav*. 2012;44:204-209.

WIC Food Packages: Time for a Change. Washington, DC: National Academies Press, 2005.

M.W. Chang, S. Nitzke, R. Brown. Design and outcomes of a Mothers in Motion behavioral intervention pilot study. *J Nutr Educ Behav*, 42 (2010) pp. S11-S21

Terms-

- **WIC**-Women, Infants and Children
- **Postpartum**- is the period beginning immediately after the birth of a child and extending for about six weeks
- **ANOVA**- a collection of statistical models used in order to analyze the differences between group means and their associated procedures (such as "variation" among and between groups)
- **logistic regression**- Logistic regression measures the relationship between the categorical dependent variable and one or more independent variables, which are usually continuous by using probability scores as the predicted values of the dependent variable
- **EBT card**- electronic benefit transfer
- **cross-sectional comparison**- collected by observing many subjects (such as individuals, firms, countries, or regions) at the same point of time, or without regard to differences in time
- **Stratification** - relative social position of persons in a given social group, category, geographical region or other social unit.
- **Chi-square analyses**- The chi-square test is used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories.
- **SNAP**- Supplemental Nutrition Assistance Program- food stamps