



# Proceedings of the WIC Food Package Evaluation Symposium

## Background and Purpose

In 2007, the U.S. Department of Agriculture published an interim rule to update the food packages provided to participants in the Special Supplemental Nutrition Program for Woman, Infants, and Children (WIC). The rule introduced the first major changes to the food packages in the WIC program's history and followed the recommendations of the Institute of Medicine Committee to Review the WIC Food Package published in 2005. The food package changes were designed to promote healthier food choices to the more than 9 million low-income pregnant, postpartum, and breastfeeding women, infants, and children who are served by the WIC program each month. These changes to the food packages were, in part, a response to the dramatic shifts in the health risks of the WIC population since the program's inception, most notably, the emergence of the obesity epidemic. While affecting all ages, races, and genders, obesity among young children is particularly troubling. Childhood onset of obesity is predictive of persistence of obesity into adolescence and adulthood, which are associated with a number of health risks, including cardiovascular disease, diabetes, and some cancers. With nearly half of all children born in the United States participating in the WIC program, the food package changes represent an unprecedented opportunity to promote healthy eating and healthy weight among young children.

The interim rule required all state WIC agencies to implement the changes by October 2009. With implementation now accomplished, there is an opportunity and need for understanding how the food package changes have impacted the eating behaviors of WIC participants, as well as state agencies administering the rule, WIC food vendors, and the community at large. Although the long-term health and other effects of the new food packages may not be realized for many years, a number of researchers are evaluating the preliminary implications of this policy change. Altarum Institute is among these researchers with two evaluations of WIC food package implementation. To facilitate dissemination of the research community's findings to a wide audience and promote shared learning of WIC food package evaluation findings, Altarum Institute funded the WIC Food Package Evaluation Symposium with resources provided by its Childhood Obesity Prevention Mission Project (CHOMP). CHOMP is an internally funded, 2-year, \$2.5 million effort designed to develop and catalyze systems changes to affect childhood obesity and make healthy, active lifestyles easier for children and families to pursue.

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## Symposium Overview

The WIC Food Package Evaluation Symposium was held on November 30, 2010, at the Washington Hilton in Washington, D.C. The event was sponsored by Altarum Institute in partnership with the Association of State and Territorial Public Health Nutrition Directors (ASTPHND); Healthy Eating Research, a national program of the Robert Wood Johnson Foundation (RWJF); and the National WIC Association (NWA). The purpose of the event was to provide a forum for researchers to share information with other researchers, policymakers, program administrators, and other interested parties, and to build on their efforts to better understand the impacts of the new WIC food packages. The objectives to be accomplished through participation in the Symposium were to:

- Learn about the association between the WIC food package changes and efforts to promote healthy food environments and prevent obesity,
- Network with other researchers and program administrators to identify opportunities for collaboration,
- Identify common themes and key findings across research efforts, and
- Obtain information to inform modifications of state WIC food package policies.

Altarum convened a Content Committee that was charged with developing the agenda for the Symposium. Members of this committee included representatives from ASTPHND; Centers for Disease Control and Prevention Division of Nutrition, Physical Activity and Obesity; Healthy Eating Research; NWA; RWJF; and the U.S. Department of Agriculture (USDA) Economic Research Service (ERS) and Food and Nutrition Service (FNS). The event was organized into three panel presentations, three concurrent, facilitated breakout sessions, and a highlights and updates session. Opening and closing remarks, as well as networking opportunities, were also provided. An outline of the agenda is provided below:

- Welcome and opening remarks
- Session 1: Impact on WIC Participants
- Session 2: Impact on WIC Vendors and the Food Environment
- Session 3: Special Topics
- Breakout Sessions (topics included Impact on WIC Participants, Impact on WIC Vendors and the Food Environment, and Impact on Other Nutrition-Related Behaviors and Outcomes)
- Highlights and Updates from Ongoing WIC Food Package Evaluations
- Closing remarks

Presentations for Symposium sessions were selected by a subcommittee of the Content Committee. Abstracts were solicited with assistance from the partner organizations and were reviewed according to criteria established by members of the subcommittee. A total of 14 abstracts were received. Nine abstracts were selected for the three panel sessions and authors of abstracts not selected for a panel were provided with an opportunity to participate in the Highlights and Updates session.

Nearly 100 participants from 22 states attended the Symposium. The diverse audience included representatives from academia, advocacy groups, federal and state government agencies, the food industry, nonprofit organizations, and professional associations. Interested parties who were unable to attend the Symposium may download meeting materials, including multimedia archives (with videos, slides, and transcripts) from the event, at [www.altarum.org/obesityresources](http://www.altarum.org/obesityresources).



## Synopsis of Conference Sessions

**Session 1: Impact on WIC Participants** featured three presentations of evaluations focused on changes in food purchases and consumption, as well as the response of participants to nutrition education on the new food choices. Key findings shared during this session included:

- An evaluation of California WIC's nutrition education campaign to introduce participants to the food package changes demonstrated significant increases in participant consumption of fruit, whole grains, and lower-fat milk even before the new foods were provided. With the addition of the new foods at the later stage of the campaign, consumption of fruit, whole grains, and lower-fat milk further increased, and vegetable consumption also increased significantly.

—Presented by Shannon Whaley, PhD,  
Public Health Foundation Enterprises WIC Program

- In New York, findings from an evaluation of short- and long-term effects of the food package changes documented that WIC participants increased their consumption of fruit, vegetables, whole grains, and low-fat milk following the introduction of the new foods. Participants reported being influenced positively to switch to low-fat milk by WIC counselors, underscoring the importance of participant-centered, one-on-one counseling to facilitate participants in making healthy changes.

—Presented by Sally Findley, PhD,  
Mailman School of Public Health, Columbia University

- In Wisconsin, there was a decrease in full use of WIC checks at six months post-implementation compared to use prior to the changes. Low redemptions of checks for whole grains, beans, and peanut butter contributed to this decrease. Preliminary analysis of data from 12 months post-implementation indicates that the use of the checks with the new foods is increasing over time.

—Presented by Jennifer Pooler, MPP,  
Altarum Institute

Symposium attendees that participated in the small group discussion on the Impact on WIC Participants identified the following points:

- More work needs to be done to address participant acceptance of the WIC food package changes, particularly the shift to lower-fat milk options.
- There is a need for continued research into how the WIC food package changes have affected families' intake of healthy foods and whether these changes have a lasting effect on family diets and overall health.
- The cultural appropriateness of the revised WIC food packages should be explored further to determine whether the rule increased participation among certain subpopulations and whether there were challenges in tailoring the packages to the cultural needs of families.



## Session 2: Impact on WIC Vendors and the Food Environment

featured four presentations on evaluations that described changes in food retail stores and community environments following the WIC food package changes. Key findings from this session included:

- In two Philadelphia neighborhoods, improvements in the overall food environment, as determined by availability, price, and quality, were observed in WIC stores post-implementation. Reduced-fat milk, brown rice, 100% juice, and varieties of fruits and vegetables increased in availability after the food package changes were implemented. The availability of whole grain bread also increased, although vendors reported that participants did not want whole grain bread and were refusing it.

—Presented by Jackie McLaughlin, MPH, RD,  
University of Pennsylvania

- In lower-income neighborhoods in Connecticut, increased availability of healthy foods and variety of whole grains, fruits, and vegetables after the food package changes was greater among WIC-approved stores compared to stores not participating in the WIC program. Vendors reported difficulty finding suppliers for the new products, specifically whole wheat bread and brown rice, and predicting new demand, but were generally able to address these challenges within three months of implementation.

—Presented by Tatiana Andreyeva, PhD,  
Yale University Rudd Center for Food Policy and Obesity

- In northern Illinois, several types of fruits and vegetables increased between pre- and post-implementation in larger stores (8 or more registers) as compared to smaller stores (1-4 registers), such as commonly consumed fresh varieties and varieties preferred by African Americans (e.g., collards). Overall, there was little evidence that change over time in fruit and vegetable selection differed by neighborhood. Few vendors experienced challenges transacting the fruit and vegetable cash value voucher, reporting that staff training reduced potential problems. However, many felt that participant knowledge was a major barrier to successful implementation of the voucher, as many WIC participants did not know the proper products to purchase which caused conflicts at the register.

—Presented by Angela Odoms-Young, PhD,  
University of Illinois at Chicago

- Small stores across Colorado, New Hampshire, Pennsylvania, and Wisconsin generally maintained their WIC authorization after implementation of the changes, despite a decline in revenue for some. In New Hampshire and Wisconsin where they did not allow participants to purchase reduced-fat milk, significant increases in the availability of low-fat milk were observed. All types of whole grains increased significantly across the four states during the study period, as did availability of fruits and vegetables. There were greater increases in fresh fruit and vegetable availability as compared to canned and frozen varieties. Vendors reported some challenges maintaining quality produce and in purchasing and accommodating new equipment to store the new foods.

—Presented by Stacy Gleason, MPH,  
Altarum Institute

Symposium attendees that participated in the small group discussion on the Impact on WIC Vendors and the Food Environment identified the following points:

- There is an increased need for ensuring that WIC vendors are educated and compliant with state policies. It would be helpful to develop and share best practices for vendor monitoring and training that address differences in practice across retailers and states' acceptable foods lists and minimum stocking requirements.



- A need for redemption-level information on the specific items that participants are purchasing was emphasized while recognizing that much of this information is proprietary. Specific interest was expressed in understanding seasonal variation in produce redemption through access to point-of-sale data.
- State agencies could assist researchers and evaluators in their continued study of the food package changes by engineering WIC surveillance systems to provide better quality data. It will also be important that national data elements are consistent from state to state in order to obtain a nationwide view of some of the impacts.

**Session 3: Special Topics** included two presentations of evaluations that measured the effects of the WIC food package changes on subgroups of the WIC participant population. Key findings shared during this session included:

- Parents of children ages 2-3 years old in Chicago reported generally favorable responses to the food package changes, although some voiced concerns about the switch to lower-fat milk. At six months post-implementation, African-American parents reported an increase in food security for their families, and parents reported an increase in low-fat dairy and high-fiber grains in their homes.

—Presented by Marion Fitzgibbon, PhD,  
University of Illinois at Chicago

- Changes to the food packages and policies for breastfeeding mothers and infants have significantly increased rates of breastfeeding initiation and duration among a large population of mothers and infants served by WIC in Los Angeles, based on an analysis of WIC administrative records.

—Presented by Mike Whaley,  
Public Health Enterprises WIC Program

Symposium attendees who participated in the small group discussion on the Impact on Other Nutrition-Related Behaviors and Outcomes identified the following points:

- Suggestions for future research included examination of consumption of the new WIC foods across food security levels and understanding the separate effects of peer counseling and food package changes on breastfeeding mothers.
- Tracking child WIC participants over time and after their participation in the WIC program were identified as challenges. One suggested solution was to increase participation by children of older ages in child health and nutrition surveys conducted through other programs.
- Variance in certain findings pertaining to nutrition-related behaviors and outcomes (e.g., breastfeeding initiation and duration rates) across states was discussed along with the need for more research about differences in trends and practices across states. The need for more interactive and effective staff and client education relative to breastfeeding was also emphasized.

### Highlights and Updates from Ongoing WIC Food Package

**Evaluations** included a series of brief presentations of ongoing WIC food package studies. Highlights included:

- Betsy Frazao, PhD, of ERS shared information about the WIC Food Package Revisions' Impact on Food Purchases and Access to Healthy Foods study which is being conducted by the Yale University Rudd Center between September 2010 and March 2012. This study is assessing changes in consumer demand through analysis of WIC and non-WIC purchases by WIC participants and whether cash value vouchers increase fruit and vegetable consumption.



- Jay Hirschman of FNS shared information about the WIC Birth Month Study which is studying the intensity, initiation, and duration of breastfeeding of infants in the month after birth, as well as the characteristics in food package choices made during that time and why. FNS also highlighted the WIC Food Package Policy Options Study, which is designed to create a database to benchmark the policy choices made by states before and after the food packages changes and will be available to researchers. FNS also commented on several other studies on the research agenda for WIC and food assistance programs.
- Carol Spaulding, PhD, of Texas A&M University presented on the National Food and Nutrition Survey, which was administered to participants in states across the nation before and after the food package changes. Early findings for 21 states indicate that fruit and vegetable intake and breastfeeding initiation rates have increased. Favorable changes in children’s milk and juice consumption were also observed.
- Pat Gradziel, PhD, RD, of the California WIC Program shared preliminary findings from a survey of WIC shopping and consumption habits between 2007 and 2010. Significant increases in whole wheat bread and brown rice were seen across English, Spanish, Vietnamese, and Chinese WIC participants. A significant decrease in juice consumption among children was also observed among these groups.
- Geraldine Henchy, MPH, RD, of the Food Research and Action Center reported on a study of state agency policies pertaining to cultural food choices available under the interim food package rule and highlighted specific variation in whole grain, soy, dairy, and canned fish options offered across states.
- Christine Tisone, PhD, of Texas A&M University provided an overview of the Texas Childhood Obesity Prevention Policy Evaluation Project’s WIC Food Access and Availability Study which is designed to assess the availability, accessibility, and affordability of healthy foods in WIC-approved grocery stores in Texas.

## Closing Remarks and Conclusion

Loren Bell of Altarum Institute provided closing remarks. He noted that the evaluation findings shared at the Symposium indicated an overall favorable response to the food package changes and were helpful in identifying where additional evaluation is needed. Based on evaluation findings, there was general consensus that WIC participants approved of the changes to the food packages; however, participants reported challenges related to difficulty finding new items (e.g., whole wheat bread) and making changes to the foods their families were accustomed to receiving from WIC (e.g., switching from higher-fat to lower-fat milk). State WIC agencies were effective in managing the transition to the new food packages as evidenced by favorable feedback from vendors and changes that participants reportedly made. The effective strategies used by the WIC program to implement this major change in policy could provide valuable lessons learned for future policy change efforts to enhance other federal nutrition programs in ways that can improve healthy eating and impact the childhood obesity epidemic. Mr. Bell identified several topics associated with participant outcomes and program operations for consideration in future evaluation of the food package changes:

- There is a need to evaluate the long-term impact of the changes to determine if WIC participants help their families adopt healthier food choices.
- The food packages are now far more complex with thousands of items eligible for purchase by WIC shoppers. There are related ramifications for vendor compliance, and program administrators will benefit from sharing “best practices” for vendor management under the new food package rule.



- The ramifications of how stores, particularly small stores, price the healthier foods and the impact of the pricing on customers other than WIC families should be assessed.
- The inclusion of fresh fruits and vegetables and other perishable foods in the WIC packages may warrant a validated tool for assessing quality of foods stocked by vendors.
- The food package changes should prompt efforts to establish a new “baseline” of the health status of individuals and evaluation of how the changes have affected obesity in children.

In conclusion, the WIC Food Package Evaluation Symposium provided a forum for those conducting research to present initial findings of studies and recommendations for future research. These types of symposia can serve as a basis for framing an overall process evaluation; proceedings can be used for policy briefs, study designs, and prioritization of future research. Results from these types of symposia, as well as ongoing opportunities for collaborations around research findings, can play an important role in helping policy makers and program administrators understand both the dynamics of what worked well in implementing such a large policy change, but also what might be improved upon when future policy development and implementation is undertaken. The organization of future events of this kind should be considered by those working in the field in order to advance our collective knowledge, evaluation methods, and strategic planning around WIC and other programs.

## For More Information

Download WIC Food Package Evaluation Symposium information, including this proceedings document, multimedia archives (with videos, slides, and transcripts) from the event, and the event brochure with presentation abstracts and speaker biographical sketches, from [www.altarum.org/obesityresources](http://www.altarum.org/obesityresources).

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This event was made possible with support provided by Altarum Institute’s Childhood Obesity Prevention Mission Project (CHOMP). CHOMP is an internally funded, 2-year, \$2.5 million effort designed to develop and catalyze systems changes to affect childhood obesity and make healthy, active lifestyles easier for children and families to pursue. CHOMP is one of three projects in Altarum’s Mission Projects Initiative. The initiative aims to solve pressing health care issues using systems methods at the institutional, organizational, and community levels in partnership with the public and private sectors.

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