



Impact of the Revised WIC Food Package on Small WIC Vendors: Insight From a Four-State Evaluation

Executive Summary

The childhood obesity epidemic is affecting millions of U.S. children, their families, the communities in which they live, and the overall health and welfare of our nation. Federal nutrition programs, such as the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), are well positioned to promote healthy diets among young children and their families. The WIC program, which serves nearly half of all infants born in the U.S., provides supplemental foods through WIC food package prescriptions to low-income women and children who are at nutritional risk. In 2005, the Institute of Medicine's Committee to Review the WIC Food Package recommended specific changes to better align nutrient intake among WIC participants with the Dietary Guidelines for Americans, with a focus on the need to include fruits and vegetables and to increase lower-fat and whole grain foods. The United States Department of Agriculture (USDA) responded by issuing an interim rule in 2007, which updated food packages per IOM recommendations. States were expected to begin complying with these changes by October 2009.

Through its Childhood Obesity Prevention Mission Project, Altarum Institute conducted a study to examine the impact of the changes to the WIC food package on small authorized WIC vendors in Colorado, New Hampshire, Pennsylvania, and Wisconsin. In low-income communities located a great distance from grocery stores with healthy food options, small stores (e.g., corner and convenience stores) are often WIC participants' only local access point to WIC foods. Because small stores are typically characterized by a limited availability of healthy and quality food options, it was anticipated that they might face unique challenges in complying with the food package changes. To better understand the impact that the WIC food package changes had on small stores, this study aimed to:

- Describe policies adopted by each state regarding allowable foods and minimum stocking requirements as well as approaches used to train WIC vendors in preparation for the food package changes;
- Examine the extent to which small stores were able to maintain their authorization with the WIC program during the period that food package changes were implemented;
- Assess changes to the availability and quality of fresh produce and other healthy foods among small WIC stores during the same period;
- Understand the changes small vendors had to make to comply with the revised WIC food package formulations; and
- Document related challenges and promising solutions identified by store managers.

This study utilized a multi-method, longitudinal design. Data sources included lists of WIC-authorized vendors obtained from state agencies before and after the food package changes were made and food inventory data collected using a modified version of the validated Nutrition Environment Measures Survey in Stores. Inventories were completed both pre- and post-implementation in a total of 211 stores in New Hampshire, Pennsylvania, and Wisconsin and at two points post-implementation at 37 stores in Colorado. Quantitative findings were put into context with qualitative interviews with 2-4 WIC officials from each state and a sample of small store managers, interviewed pre- ($n = 35$) and post-implementation ($n = 43$).

Key Findings and Discussion

■ Most small WIC stores were able to maintain their authorization status

Two of the four states in the study, Pennsylvania and Wisconsin, saw an increase in the number of very small (one-register) WIC authorized stores post-implementation. New Hampshire saw a decline in the number of one-register stores; however, this may have been an artifact due to a temporary moratorium on new store authorizations during the study period. In most cases, stores in all states that were not authorized at the time of the second data collection period were in the process of reapplying for WIC authorization because the store had a recent change in ownership.

■ Small stores appear to have added healthy foods to their inventory in response to the WIC food package changes

Most of the newly allowable foods were more readily available post-implementation than they were previously (Table 1). In New Hampshire, Pennsylvania, and Wisconsin, significant increases in availability were observed for soy milk, whole wheat bread, whole wheat tortillas, and brown rice. Significant increases in the availability of low-fat (1%) milk were observed only in stores in New Hampshire and Wisconsin, the only study states that did not allow participants to buy reduced-fat (2%) milk. While fresh fruit availability increased in all three study states, Wisconsin was the only state of the three to see significant increases in all three varieties of fruit: fresh, frozen, and canned. Some significant increases in the availability of vegetables were also observed; however, vegetables were generally more available than fruit at baseline. In Colorado, whole grain bread in a 16-ounce package was the only WIC food item that significantly increased in availability between the two post-implementation data collection periods, providing some indication that the availability of this item could increase as suppliers and stores adjust to this change.

Table 10. Differences in Percentage of Small Stores Carrying Various Food Items Between First and Second Data Collection Time Points, by State

	New Hampshire (n = 45)	Pennsylvania (n = 93)	Wisconsin (n = 73)	Total (n = 211)
	% diff	% diff	% diff	% diff
Milk				
Skim	2.2	-3.2	0.0	-0.9
Low-fat (1%)	17.8*	4.3	31.5‡	16.6‡
Reduced-fat (2%)	-4.4	-2.2	-1.4	-2.4
Soy	15.6*	11.8*	8.2*	11.4‡
Fruit				
Fresh	13.3*	12.9*	12.3*	12.8‡
Canned	2.2	1.2	8.2*	3.8*
Frozen	11.1	4.3	15.1*	9.5*
Vegetables				
Fresh	8.9*	3.2	5.6	5.2*
Canned	0.0	0.0	-1.4	-0.5
Frozen	4.4	8.6*	8.2	7.6*
Grains				
Whole wheat bread, any size	24.4*	14.0*	49.3‡	28.4‡
Whole wheat tortilla	37.8‡	8.6*	21.9‡	19.4‡
Corn tortillas	13.3	11.8*	4.1	9.4*
Brown rice	51.2‡	16.1*	50.7‡	35.3‡
Tofu	9.1	1.1	-6.9	0.0

*p < 0.05 †p < 0.001 ‡p < 0.0001

■ Many stores with only one or two registers had to make multiple changes in order to meet revised WIC food package requirements

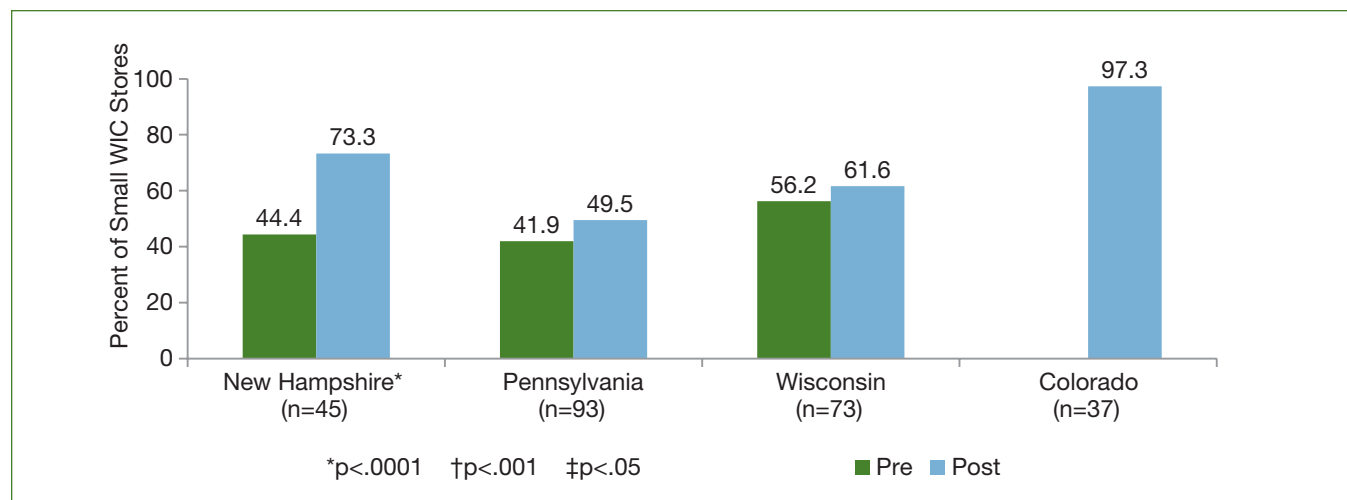
To support inventory changes, many smaller stores needed to simultaneously make infrastructure and operational changes to adjust their existing supply channels. These changes included: reorganizing refrigeration equipment or shelf space and modifying in-store promotion strategies. In addition, the food package changes seemed to exacerbate vendors’ need to self-supply from larger grocery stores (a common practice among small stores to avoid making bulk purchases) because they could not find the very specific brand or size allowable through their current suppliers or because suppliers delivering to their store refused to leave the minimum stock of certain perishable foods (e.g., whole wheat bread).

■ Despite a seemingly successful transition to the revised food package, some challenges still remain

■ Vendor ability to maintain food freshness

Limited refrigeration equipment and lack of air conditioning in the summer months were cited as some of the primary concerns related to keeping produce fresh. Findings from the store inventories indicate that the percentage of fresh produce deemed to be of acceptable quality was consistent or increased between pre- and post-implementation; however, increases in two states were marginal and there is still significant room for improvement in this area (Figure 1). For example, at post-implementation, less than 50% of small stores in the Pennsylvania sample had at least 75% of fresh fruit of acceptable quality. Similar levels of quality were observed for fresh vegetables and in the other study states.

Figure 1. Percentage of Small WIC Stores with at Least 75% of Fresh Fruit of Acceptable Quality at Pre- and Post-Implementation, by State



■ Availability of products in allowable form

One of the biggest challenges faced by vendors was obtaining some of the new WIC foods in appropriate sizes, namely, the whole wheat bread in a 16-ounce size. This size loaf was produced by few bread manufacturers prior to food package implementation. The significant demand brought about by the WIC program’s decision to approve this size resulted in limited supplies among those manufacturers that did produce it, while some other producers had to reconfigure their sizing and packing practices to accommodate the approved size.

■ Adequate vendor preparation likely factored into the overall success of implementation, but there is a need for ongoing engagement of these and other WIC stakeholders through:

- Continued and expanded training of vendors,
- Ongoing engagement of food suppliers, and
- Continued nutrition education for WIC participants.

Recommendations

Recommendations for program implementation and suggestions for future research are provided below to assist policymakers and WIC program administrators in continuing to improve aspects of food package implementation to ensure that the changes are as impactful and far-reaching as possible.

- State WIC data could be better used for internal program management and policy making, including ongoing monitoring of small store participation in the WIC program
- There is a need to examine the impact of specific minimum stocking requirements on small store participation, food availability, and food quality
- Ongoing quality assessments of WIC foods in small stores need to be incorporated into vendor management practices through the use of new or revised monitoring tools
- Support vendors by expanding annual trainings and providing more opportunities for education and engagement
- Studies of participant food choices and store selection can be important tools for state policy development
- A strong process evaluation of the new WIC food package implementation could serve as a roadmap to help the USDA make major changes in other child nutrition programs
- Provide forums for policy makers, program administrators, and researchers to share findings and best practices and to foster collaboration

Conclusion

With some nine million WIC participants now receiving prescriptions for healthy foods each month, the potential for the program to influence consumer demand for these items and to provide the economic opportunity small stores need to add healthy foods to their inventory is great. More importantly, increased local access to healthy foods could have longer-term impacts on child nutrition behaviors and childhood obesity trends. As the results from various evaluations are summarized over time, a more complete understanding of both the specific and far-reaching impacts of the food package changes will emerge.

The full report, executive summary, and a supplementary addendum of additional data from this study are available to download at www.altarum.org/obesityresources.

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