



Impact of Revised Food Packages on the Food Environment

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SYSTEMS RESEARCH FOR BETTER HEALTH

Two Studies

- ▲ Impact of the Revised WIC Food Packages on Small Vendors
- ▲ Access to WIC Foods in Tribal Areas



Rationale for Study of Small WIC Vendors

▲ Small WIC stores:

- Play an important role in the WIC program
- Are typically characterized by a limited availability of healthy food options
- Likely to be the most affected by the food package changes
- Critical to success



Specific Aims

- ▲ Examine the extent to which small stores were able to maintain their authorization with the WIC program;
- ▲ Understand the changes small vendors needed to make in order to comply with the new regulations as well as the challenges they faced in doing so; and
- ▲ **Assess the availability of fresh produce and other new, healthy foods among small WIC stores pre- to post-policy.**

Methodology

- ▲ Multi-method approach
- ▲ Longitudinal design
- ▲ Store inventories were conducted to assess food availability
 - Used modified NEMS-S¹
 - Conducted 275 pre- and 248 post-policy inventories

¹Glanz K, Sallis JF, Saelens BE, Frank LD. Nutrition Environment Measures Survey in Stores (NEMS-S): Development and Evaluation. Am J Prev Med. 2007; 32(4):282-289.

Participating States and Stores

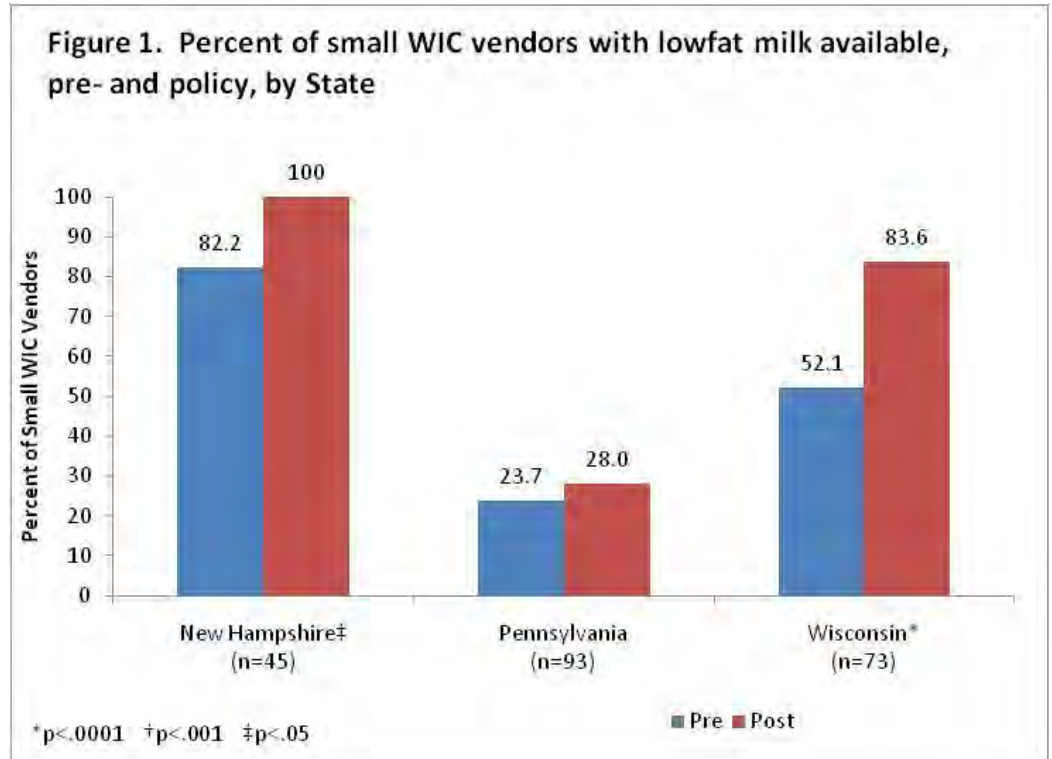
Table 1. Characteristics of WIC vendors included in final study sample, by state

	NH	PA	WI	CO
	N (%)	N (%)	N (%)	N (%)
Total Sample	45 (100)	93 (100)	73 (100)	37 (100)
Vendor Size				
1 register	23 (51.1)	70 (75.3)	48 (65.8)	2 (5.4)
2 registers	12 (26.7)	18 (19.4)	10 (13.7)	16 (43.2)
3 registers	7 (15.6)	1 (1.1)	11 (15.1)	9 (24.3)
4 registers	3 (6.7)	4 (4.3)	4 (5.5)	10 (27.0)
Urbanicity				
Urban	20 (44.4)	81 (87.1)	50 (68.5)	7 (18.9)
Rural	25 (55.6)	12 (12.9)	23 (31.5)	30 (81.1)
Store Type				
Convenience	11 (24.4)	4 (4.3)	1 (1.4)	0 (0)
Food mart / gas station	4 (8.9)	1 (1.1)	2 (2.7)	1 (2.7)
Corner store ("bodega")	14 (31.1)	72 (77.4)	45 (61.6)	15 (40.5)
Grocery store	16 (35.6)	16 (17.2)	25 (34.3)	21 (56.8)

Findings

Availability of new, healthy WIC foods: MILK

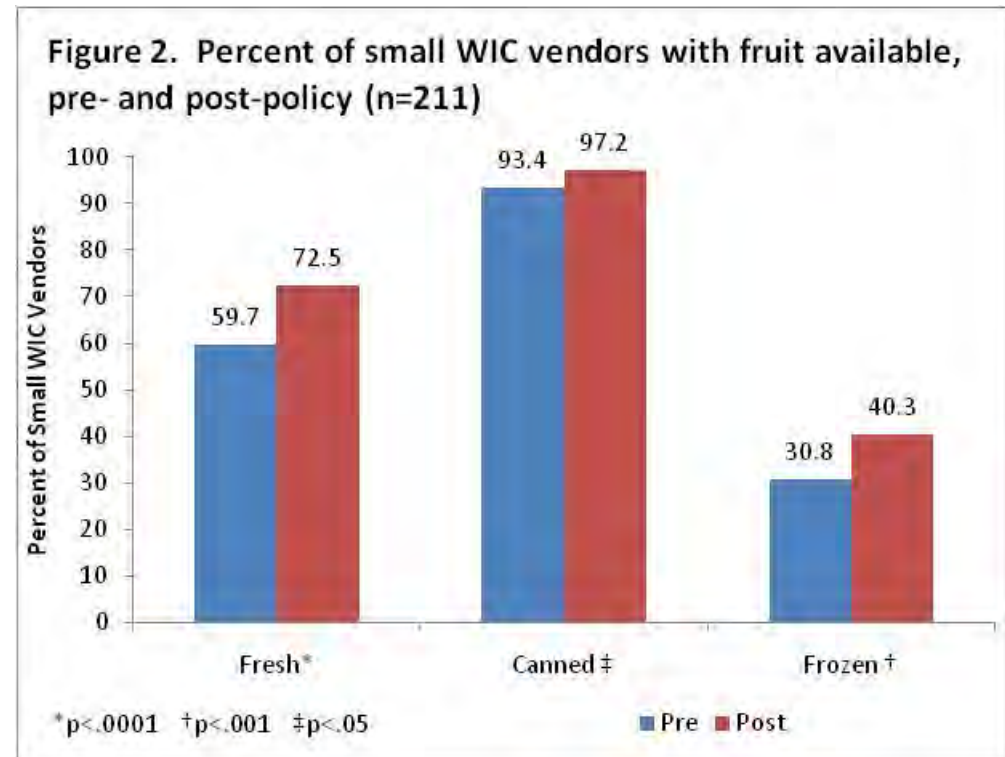
- ▲ Significant increases in the availability of lowfat milk
 - only in NH and WI
 - only among stores with 1 register
- ▲ Significant increases in the availability of soy milk
 - all three study states
 - all store sizes



Findings

Availability of new, healthy WIC foods: FRUIT

- ▲ Significant increases in the availability of fruit pre- to post-implementation
 - Fresh
 - Among 1 and 2 register stores
 - All three study states
 - Canned and Frozen
 - Among 1 register stores
 - Only in Wisconsin



Findings

Availability of new, healthy WIC foods: VEGETABLES

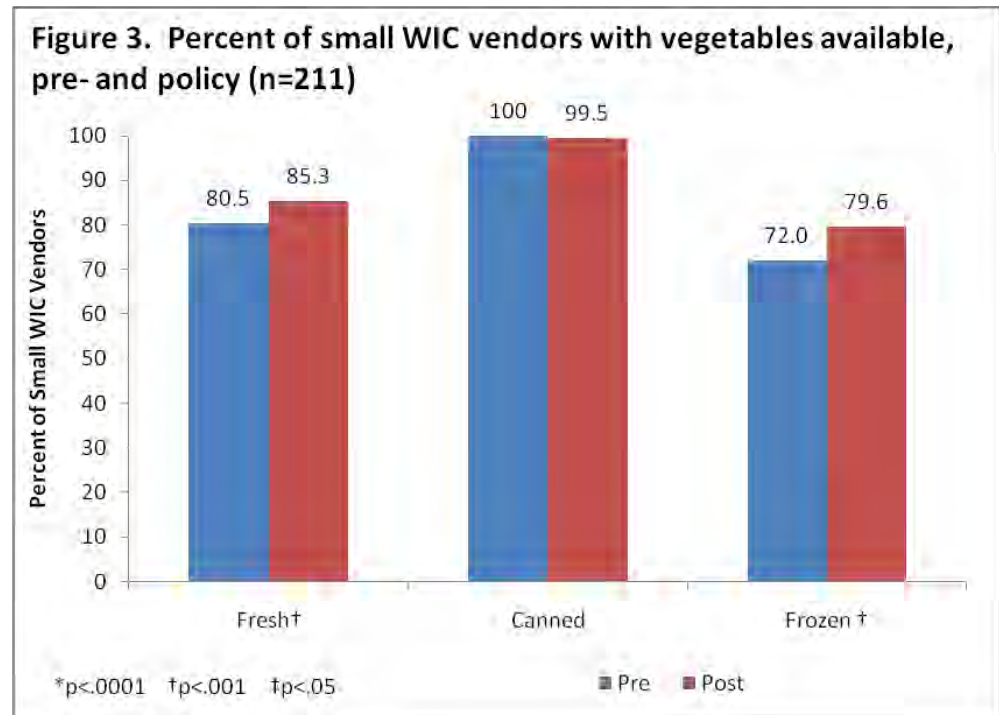
▲ Some significant increases in the availability of vegetables pre- to post-implementation

— Fresh

- Among 1 register stores
- Only in NH

— Frozen

- Among 1 register stores
- Only in PA

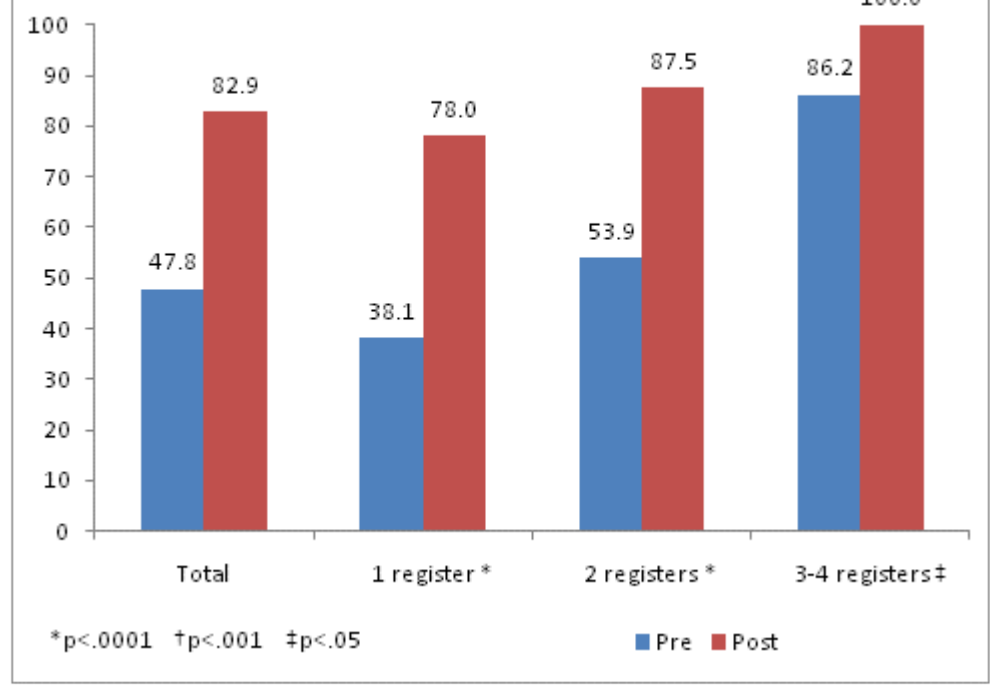


Findings

Availability of new, healthy WIC foods: *WHOLE GRAINS*

- ▲ Significant increases in the availability of whole grain options pre- to post-implementation
 - Brown rice, whole wheat tortillas, and whole grain bread
 - Among 1-4 register stores
 - All three study states
 - Soft corn tortillas
 - Among 1 and 2 register stores
 - In PA only

Figure 4. Percent of small WIC vendors with brown rice, by number of registers (n=211)



Conclusions

- ▲ Did the availability of fresh produce and other healthy foods increase among small WIC stores?
 - *Yes with some variation by state*
 - *Stores with one and two registers saw most significant increases*
 - *Some policy choices could be more influential than others (e.g. lowfat milk)*

Opportunities to Enhance Access to WIC Foods in Tribal Areas

- ▲ Funding from Aetna and Altarum
- ▲ Partnered with Inter Tribal Council of AZ, Inc. (ITCA)
- ▲ Selected 3 local agencies for case study
- ▲ Multi-method approach



Findings from Inventories

- ▲ Inventoried a total of 14 stores across the 3 tribes to assess whether met minimum stocking requirements

Food Item	Vendors Meeting Criterion	
	n	%
Infant Fruits and Vegetables	7	50%
Milk	9	64%
Infant Formula	9	64%
Canned Fish	9	64%
Cheese	10	71%
Whole-Wheat Bread	11	79%
Fresh Fruits and Vegetables	12	86%
Juice	12	86%
Infant Cereal	13	93%
Infant Meats	13	93%

Findings from Participant Interviews

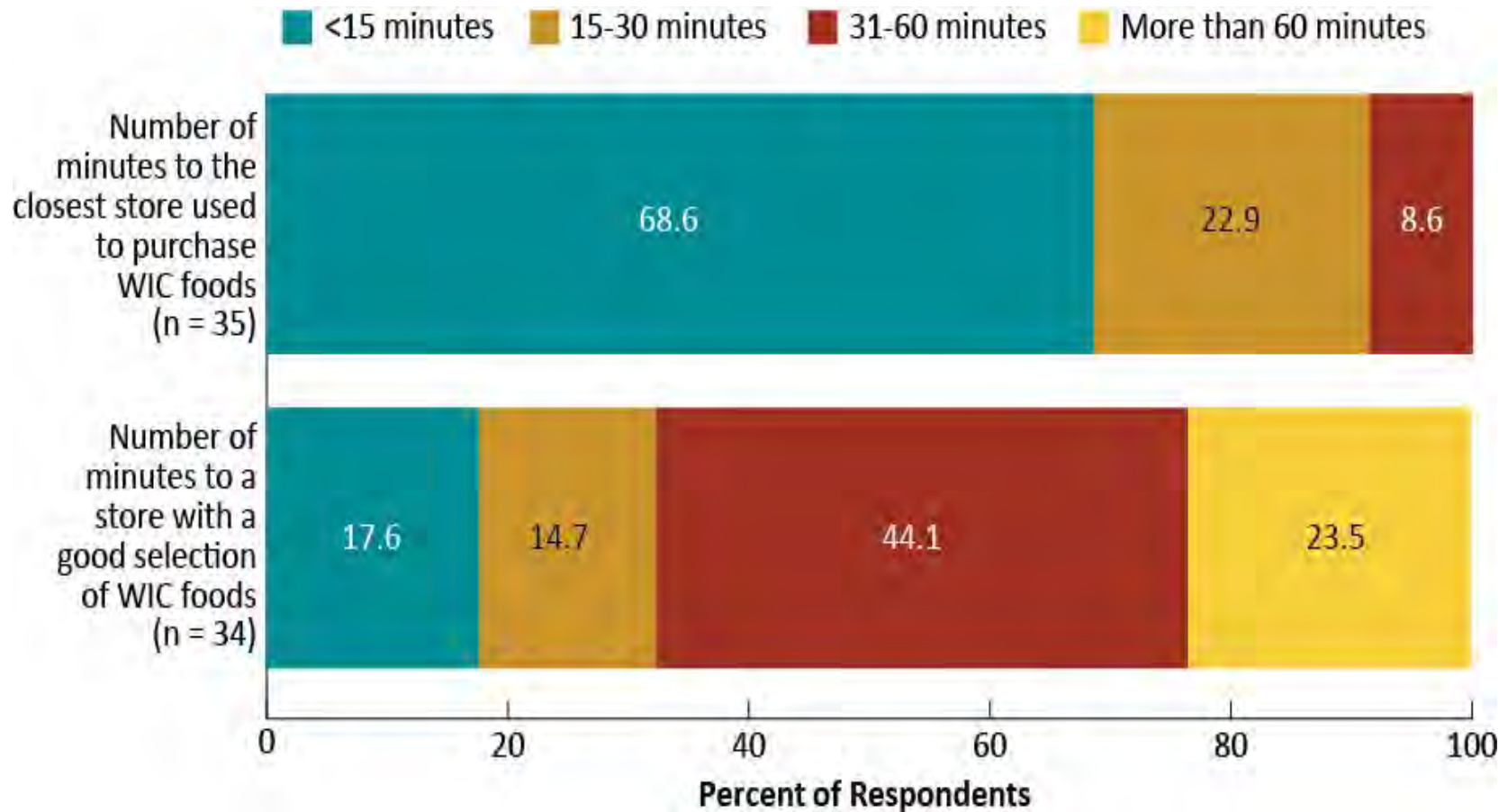
- ▲ Two of the four major barriers identified by program participants were directly related to access to WIC foods
 1. Limited selection and / or poor quality of produce



*“The
vegetables
are shriveled
up, so I don’t
want to buy
them.”
— WIC
participant*

Findings from Participant Interviews

2. Transportation



Findings from Vendors

- ▲ Two of the four major barriers identified by vendors were directly related supply and demand
 - 1. Delivery of spoiled or damaged goods by some distributors**

“It’s hard...we get one truck a week... I don’t get anything from [one distributor] because it comes in so rotten.”

— WIC vendor



Findings from Vendors

2. Difficulty anticipating demand and maintaining adequate supply of some WIC foods

“[I have to travel to get food] at least once or twice a month if I don’t predict it right.”

— WIC vendor



More Info?

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