Recent significant WIC policy changes to the WIC food package, along with targeted education and support, are positively influencing exclusive breastfeeding. At the country’s largest local WIC agency, located in Southern California, exclusive breastfeeding has increased significantly. Staff training and participant education alone resulted in a significant increase in mothers initiating and continuing exclusive breastfeeding, and those rates rose again after the new WIC food packages were implemented.

The Importance of Breastfeeding

Breastfeeding has long been proven to protect mothers and infants from chronic health problems such as infections, diabetes, and cancer. This protection is strongest when breastfeeding is exclusive—babies receive no foods or fluids other than breast milk—and when it continues at least for the first six months of life. Recent calls to support breastfeeding from the Surgeon General, the Institute of Medicine (IOM), and the National Prevention Council highlight breastfeeding as a key strategy for stemming the epidemic of childhood obesity, starting at birth.

Despite years of promotion and education, relatively few infants in California are breastfed exclusively, even for a few weeks. In 2009, 90 percent of women in California started breastfeeding in the hospital, but only about half left the hospital exclusively breastfeeding.

Low-income children on the WIC program, who are most vulnerable to chronic diseases such as obesity and diabetes, have historically been the least likely to be breastfed exclusively. Fewer than 20 percent of California WIC participants in 2010 were breastfeeding exclusively at three months after birth, and that percentage dropped to fewer than 16 percent at six months. Now, however, thanks to sweeping California WIC policy changes implemented in the past two years, there has been a remarkable improvement in these trends.

New WIC Policies: Enhanced Foods and Support for Breastfeeding Mothers

Based on Institute of Medicine recommendations, in 2009 USDA implemented new rules to support exclusive breastfeeding. These rules increased the value of the WIC food package for mothers who fully breastfeed (and who receive no WIC checks for formula), reduced the amount of formula available for mothers who partially breastfeed, calibrated formula amounts for infants by age, and postponed the addition of complementary foods for infants. California WIC began implementing these new policies in late 2009 and included an important additional policy that other states could choose to implement as well: in order to firmly establish exclusive breastfeeding, breastfeeding mothers are not routinely given infant formula in the first month postpartum (see box).

Multiple WIC Policies in California Encourage Exclusive Breastfeeding

- No routine issuance of formula in the first 30 days for breastfeeding infants
- Individual assessment of mother and baby for breastfeeding concerns and problems immediately postpartum and at the first postpartum visit
- More carefully calculated quantities of supplemental formula
- Greatly enhanced food package for breastfeeding mothers
Taken together, these policy changes were among the most sweeping and significant in the WIC transformations that took place in 2009. Six months prior to the implementation of these changes, all California WIC agencies initiated intensive training for frontline staff around the new breastfeeding emphasis, including training in proper assessment and support of breastfeeding issues. In addition, all agencies adopted a comprehensive curriculum called Healthy Habits Begin at Birth to educate participants about making breastfeeding decisions and about the breastfeeding incentives in the new food package.

**Study of Outcomes in Nation’s Largest WIC Program**

To advance an understanding of policies that increase breastfeeding rates among WIC participants, researchers at the country’s largest local WIC agency, PHFE WIC, investigated the impact of the food package changes on WIC breastfeeding rates. Reviewing WIC administrative data for more than 180,000 births, researchers examined the rates of the three different types of WIC food packages issued: for fully breastfeeding, combination breastfeeding, and formula-only feeding packages. A fully breastfeeding package means that the mother and infant receive no checks for formula from WIC; a combination breastfeeding package means that the mother and infant receive some formula from WIC; and a formula-only package means that the mother and infant receive the maximum allowable amount of formula from WIC. These three package types were used as proxies for feeding behavior. Given the high price of formula and the fact that mothers can get free formula through WIC, it is not likely that mothers obtained large amounts of formula outside of the WIC program (an assumption that has been validated by PHFE in a follow-up study).

The data review captured rates of food packages issued at three time periods: before staff training or participant education about the food package changes; during staff training and participant education but before the new food package was available; and after the food package changes that provided greater incentives for breastfeeding were implemented. Because staff training and participant education began prior to implementation of changes in the food package, researchers were able to evaluate the impact of education and training alone on breastfeeding rates, separate from the impact of the changes to the food packages and breastfeeding policies. To capture how breastfeeding duration was affected by training, education, and policy changes, researchers conducted separate analyses of food packages issued for infants at three time periods: at enrollment in WIC (generally soon after birth), at two months old, and at six months old.

**Staff Training, Participant Support, and Policy Change Make the Difference**

The analysis of PHFE WIC data showed that the issuance of fully breastfeeding food packages to mothers (no formula included) increased significantly following education (begun April 2009), and increased again following implementation of the policy change (October 2009) (Fig. 1). These increases were accompanied by

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**Fig. 1. Exclusive Breastfeeding Rates Increased After Education and After Food Package Changes**

Food packages issued for exclusive breastfeeding in Los Angeles increased following education (April 2009) and again after implementation of food package changes (October 2009).
correspondingly significant decreases in the issuance of the combination food package (some formula issued), and some decrease in the rates of formula-only packages (maximum amount of formula issued), both after training and education alone and again after implementation of the new food package policies. The study found that six months after implementation of the food package changes, the rates of food packages for fully breastfeeding infants increased by a very impressive 86 percent.

Similar increases were seen for infants at two months and at six months of age (Fig. 2). The rates of issuance of the fully breastfeeding package for two-month-old infants increased after training and education and again after the policy change. Equally impressive, rates of the packages issued for exclusive breastfeeding for six-month-old infants increased dramatically. These results show that breastfeeding duration increased as well as initiation—a critical WIC outcome objective.

Thus, training and education initiated six months before the food package changes helped mothers to continue exclusive breastfeeding longer. Education and support in advance of food package incentives motivated positive behavior changes among WIC mothers. The health impacts are profound. See the companion brief in this series, WIC WORKS: Higher Breastfeeding Rates Can Reduce Obesity.

**Fig. 2. Exclusive Breastfeeding at Two and at Six Months Continued After Education and Food Package Changes**

Mothers breastfeeding infants who were two and six months old were more likely to continue receiving food packages for exclusive breastfeeding after education and after food package changes were introduced.

**Conclusion**

This study demonstrates that the changes implemented in 2009 that were aligned to promote breastfeeding as the default feeding choice—including training for frontline staff, changes in program policy, and revised educational messages—increased exclusivity and duration of breastfeeding and decreased the use of formula in WIC’s low-income population. By strategically linking key policy changes with a statewide campaign offering consistent messaging, intensive staff training, and participant assessment and support, California WIC practitioners were able to achieve dramatic improvements in one of WIC’s most important outcome indicators.
ACTION RECOMMENDATIONS TO INCREASE EXCLUSIVE BREASTFEEDING IN WIC

1. Congress should continue to fund breastfeeding support and education as a core WIC function and provide enough funding to ensure that all WIC participants have access to a qualified breastfeeding peer counselor.

2. Congress and USDA should continue to support large- and small-scale evaluations of WIC breastfeeding policy initiatives in order to capture and highlight what works and help WIC practitioners adopt best practices quickly and easily.

3. State WIC Programs should implement the state option to discontinue routine provision of infant formula to mothers who breastfeed, accompanied by comprehensive and intensive staff training and consistent messaging and support for WIC participants about their feeding decision.

4. California WIC should utilize food package issuance data to improve exclusive rates through a performance bonus system for agencies achieving the highest increases in rates.

5. California WIC should work proactively with early child companion programs such as SNAP-Ed, First Five, and the Child and Adult Care Food Program to plan and coordinate breastfeeding improvement initiatives and to share materials across sectors.

Notes


