V. CONCLUSIONS

This report has described 20 promising WIC initiatives in 12 states, which are in five of the seven FNS regions. The programs vary considerably in the services delivered, target populations, and staffing, as well as in the scale of operations of the state or local WIC agencies that developed them. In this chapter, we consider what we can learn from these programs. In particular, we focus on the following questions:

- What are the sources of innovative ideas? How do these ideas become reality?
- What do these programs suggest about the implementation of similar programs? What contrasts among the programs may deserve further study?
- What types of funding do innovative programs use? How do programs with outside funding or special WIC funding differ from those funded using only WIC Nutrition Services and Administration (NSA) funds?
- To what extent is there evidence that the initiatives are well implemented or result in positive outcomes? If evidence is not available, why not? Would it be feasible to design an evaluation to test the effect of some of these initiatives?
- Can these programs be replicated? What types of adaptations would be needed?

We emphasize that we have not conducted a formal evaluation of these programs—for the most part, we cannot assess their impacts. (We discuss the available evidence concerning impacts below.) What we can say is that the programs have useful goals, are being implemented largely as planned, and are well received by staff and clients. Their approaches seem carefully thought out, and other WIC agencies may find their materials useful. Thus, some may be worthy of replication and more rigorous study of their impacts on key outcomes such as breast-feeding rates, children's body mass index (BMI), and the extent to which families adopt healthy eating practices (for example, using lowfat or fat free milk for children age 2 and older or consuming at least five servings of fruits and vegetables per day).

A. SOURCES OF INNOVATION

Most of the programs we studied were conceived and developed by the state or local WIC staff who administer them, yet other stakeholders often made important contributions to program planning. In many of the state initiatives, state staff obtained ideas and feedback on plans from the local level. In local initiatives, agency leaders innovated in varied circumstances, but two seemed most common: (1) to take advantage of outside funding sources to expand services, or (2) to stretch scarce resources farther. Programs with outside funding were sometimes developed, at least in part, outside of WIC, or reshaped to meet the funders' needs.

State staff developed new initiatives in response to needs they formally or informally identified. They also gathered information on related programs at professional conferences and

from other state WIC or public health agencies. For example, Michigan staff decided to conduct training in facilitated group discussion based on their perception that nutrition education was "stale" in the state, as well as a presentation on the topic that they heard at a National WIC Association meeting. The California pediatric nutrition training was modeled after a university training program for nutritionists and dietitians working in pediatric environments. Regardless of the source of inspiration, it often took one or a small group of dedicated, enthusiastic staff to make the new initiative happen.

Many of the state-level initiatives profiled in this report involved collaborative efforts between central-office state staff and local or regional staff to decide on new approaches and develop new materials. In particular, three states—Michigan, Oklahoma, and Pennsylvania—mentioned relying on nutrition education committees, which consisted of both local and state nutrition education staff, to develop or review materials for the new initiative.[1] For example, Oklahoma WIC used its Nutrition Education Focus Group (made up of local staff with state staff facilitating) to build support for and review materials for the Get Fit With WIC initiative through quarterly meetings. In Pennsylvania, several local agency nutrition education coordinators are part of a nutrition education committee and have a monthly conference call with the state coordinator to provide feedback on nutrition education initiatives, including the Obesity Prevention Modules. Another approach to obtaining local feedback is to involve state employees responsible for particular regions (who are in close touch with local agencies in their region) to provide feedback on the initiative. Managers reported this approach was helpful in the Wisconsin bilingual training program, the Alabama initiative to prevent early childhood caries, and the Oklahoma Get Fit With WIC initiative.

At the local agency level, leaders developed innovative programs in response to local service needs, the local funding environment, and their relationships with other stakeholders. For example, the three California county breast-feeding initiatives (in Alameda/Contra Costa, Riverside, and Sacramento counties) used outside funding sources to build on services already available. Staff at these large agencies had the time and skills to develop detailed funding proposals. In contrast, one manager creatively working with limited resources implemented the volunteer peer counseling program at Community Action Southwest in Pennsylvania. Coordination of service delivery between WIC and home visiting programs for Medicaid high-risk mothers in several northwest Michigan counties was a product of tight funding, an institutional structure in which both programs fell under the same management, and staff who worked together to make services more seamless for their clients.

Furthermore, outside partners involved in funding programs—particularly the programs we would consider "WIC Plus"—often contributed to the program's design. In two cases, the original idea was developed to some extent outside of WIC: (1) the Alabama dental program (initiated by and funded in part by the State Oral Health Branch); and (2) the Los Angeles area CARE program (funded by NIAAA and initiated by UCLA staff, one of whom also works at PHFE-WIC). In other instances, the WIC staff modified the original purpose or design of the

[1] Other states may have such committees, but the states noted are those that mentioned a committee's role in providing feedback on, and building support for, the initiatives.

initiative in response to the requirements of outside funders. For example, both the Berkeley and Riverside breast-feeding programs agreed to serve all mothers in a certain area or served by a certain hospital as a condition of their funding. Programs with March of Dimes funding agreed to provide some of the March of Dimes' materials. These were changes the program officials were willing to make.

B. IMPLEMENTATION LESSONS

These 20 initiatives suggest preliminary lessons for those interested in implementing similar programs. They also suggest some implementation issues that may be worthy of more research and experimentation.

1. Lessons from Breast-Feeding Programs

We first discuss lessons from the implementation of breast-feeding peer counseling programs, since Congress has recently providing funding that targets such initiatives. We then discuss lessons from other breast-feeding programs and some issues for future research.

a. Lessons from Peer Counseling Programs

In designing a peer counseling program, it is important to develop a job description, a recruitment and retention strategy, guidelines for supervision and documentation, and good relations between the WIC staff and peer counselors. More specifically, as peer counseling programs are now eligible to receive special funding, it is important to define what exactly can be considered a peer counseling program, as great variety currently exists in the hours, compensation, training, and duties of peer counselors. The basic qualifications for peer counselors—enthusiastic current or former WIC participants with breast-feeding experience—are well established, but there may also be variation in additional requirements for the job.

Several officials who operate peer counseling programs (particularly those that are volunteer or part-time) report that it is becoming more challenging to recruit and retain peer counselors because welfare reform has led more WIC mothers to enter the workforce on a full-time basis. Possible strategies for addressing this challenge are (1) to design a full-time peer counselor position with adequate pay and benefits, or (2) to allow peer counselors to work by telephone during evening hours, so that mothers could work another job and also be peer counselors for a few hours a week. Recently, USDA has expressed interest in supporting fathers of breast-fed infants. The Texas peer dads program, however, has had difficulty finding peer fathers who can be at the clinics because most work full-time. This situation could become increasingly common among women.

However, many peer counselors, even those who worked as volunteers, found they gained valuable skills in this position that allowed them to move on to full-time or better-paying jobs. Given this experience, another strategy would be to develop a career ladder from the peer counselor position to a permanent job with WIC or a related agency. After a career ladder is established, an agency might expect that peer counselors would work only a year or two, but that

the training investment would remain useful as they move on to another position. This career ladder could also be used as a recruitment tool for the peer counseling program.

Peer counselors need adequate supervision, clear protocols, and sufficient literacy skills to maintain WIC clients' records. In general, supervisory staff members report that the few peer counselors who did not work out had difficulty keeping up with paperwork or would "wing it" when they did not know something, instead of seeking assistance from the supervising lactation consultant or other WIC professionals. Although the programs profiled do not have formal educational requirements for peer counselors, the extensive training programs could be serving as a literacy screen. Some programs reported one-third to one-half of prospective counselors did not complete the training.

Peer counselors may be more effective and satisfied if regular WIC staff (such as nurses, nutritionists, and clerks) understand the peer counselors' roles and value their work. For example, some managers reported their staff questioned whether peer counselors who sat and nursed their babies in the WIC waiting room were really working, not realizing that modeling breast-feeding and talking to other WIC mothers *is* their job.

b. Other Lessons from Breast-Feeding Programs

Most of the promising breast-feeding programs we studied (whether they use peer counselors or not) emphasize three services, above and beyond the prenatal classes and counseling that most clinics provide:

1. Contacting the mother in-person or by phone within the first two weeks after birth (often, while in the hospital).
2. Making help available within 24 hours when a problem arises. Ideally, help is available by telephone 24 hours a day and in person during office hours for more severe problems. However, some programs have only in-person help available, some have only telephone help available, and some cannot return calls received in the evenings or on weekends until the next business morning.
3. Providing follow-up calls to breast-feeding mothers at regular intervals after the birth, rather than waiting for them to call in—many mothers are too overwhelmed to call themselves.

In addition to services in these three areas, outreach to community health providers is a desirable part of a WIC breast-feeding program, so that women receive a pro-breast-feeding message wherever they receive services. It also is a mechanism for changing the image of WIC among health providers from "WIC is where to get formula" to "WIC makes breast-feeding easy" (the slogan of the Miami-Dade breast-feeding program). Transforming how stakeholders perceive the program may, in turn, improve referrals to WIC. However, as the discussion of the Miami-Dade program shows, such outreach is hard to do with current WIC NSA funding, even in large agencies—those programs most successful in doing outreach have non-WIC funding.

c. Questions for Future Research

The breast-feeding initiatives described in this report raise important questions:

- ***How effective is telephone support alone versus providing breast-feeding support both in person and by telephone?*** Telephone support has obvious cost advantages, and it is certainly better than no support, yet the physical nature of breast-feeding suggests that in-person support may be very important in some situations.

- ***What are the most appropriate tasks for peer counselors?*** One possible approach to examining this is to compare programs that use peer counselors in different ways. States such as Texas with large, varied peer counseling programs may provide a natural laboratory for studying this issue, as they may allow researchers to find similar areas with different roles for peer counselors.

- ***Should peer counselors be regular employees, temporary employees, contractors, or volunteers?*** Regular employees would be easier to recruit and retain, and it may be easier to create a career ladder for them, but they are the most expensive. Temporary employees or contractors may have more flexibility to work the number of hours they feel comfortable, if peer counseling is a second job, and are less expensive, as they generally do not receive benefits. Volunteer status is useful if the program is funding constrained. Volunteering is also an option if potential peer counselors do not want to work because of concern about losing welfare benefits or cannot work because of immigration status. However, regular staff may see temporary workers or volunteers as a threat. Similarly, combining paid and volunteer peer counselors may create tension, as occurred in the Miami-Dade program.

2. Lessons from Nutrition Education Programs

Substantial consensus exists that traditional WIC nutrition education needed improvement in both style and substance. The initiatives reviewed in this report focused on (1) improving methods for conveying information; (2) broadening the audience for nutrition education to include children and non-English speakers; and/or (3) updating the content of nutrition education to reflect changes in nutrition knowledge, new concerns about obesity, and changes in foods available, particularly infant formulas. We first discuss lessons from implementation of new nutrition education approaches, followed by lessons regarding staff training and possible areas for future research.

a. Lessons Regarding Nutrition Education Approaches

Several programs have implemented interactive approaches to nutrition education, which seem promising because they are more fun both for staff and clients and may motivate clients to show up for their nutrition education sessions more often. In addition, these approaches seek to be more effective in encouraging behavior change. Changing from a lecture-style format to facilitated group discussions, for example, allows clients to share and affirm their experiences, while staff address misconceptions, introduce a few key messages, and ask participants to

commit to a change in behavior. In Michigan, the Learn Together training taught local WIC staff how to use and train others in the facilitated discussion approach. Instead of providing specific curricula for discussions, state-level staff encouraged local agencies to develop their own discussion plans using a specific template. Staff in Oklahoma and Pennsylvania also received training in this method, along with new curricula.

The Get Fit With WIC initiative in Oklahoma, the project to prevent early childhood caries in Alabama, and the Florida Mooove campaign also included interactive materials and incentives. More specifically, the waiting room often had displays that could be examined and manipulated. For example, Florida used test tubes to indicate the amount of fat in different types of milk, and Oklahoma's WIC waiting rooms included learning tables for children. Incentive items linked to the programs' messages were common, especially in Oklahoma (beach balls, magnets, stickers) and Alabama (toothbrushes and toothpaste). These items add fun to learning and can help clients remember key messages.

Several initiatives involved WIC children in nutrition education activities, which also makes nutrition education more fun and engaging for staff and parents or caregivers. In both the Alabama and Oklahoma initiatives, puppet shows were used to convey key messages. Although it is not clear how much the children retained, these activities are also important in modeling positive behaviors for parents. For example, some activities involved reading a children's book about food with a group then giving each child a copy of the book to take home—this fosters literacy at home, while reinforcing healthy eating habits. In Oklahoma, children were also involved in play and movement activities, which helped show and reinforce to parents that active play is the most age-appropriate physical activity for preschoolers.

Another promising development in Alabama and Oklahoma is collaboration with local Head Start programs. WIC staff present nutrition-related puppet shows or activities to children attending Head Start programs in some areas of the state. By working with children attending Head Start, many of whom participate in WIC, staff may reach more WIC children. WIC staff also can model the presentation of positive nutrition messages to Head Start staff.

b. Lessons Regarding Staff Training

Direct training in content is useful, as the science is changing rapidly in many areas of nutrition, including obesity prevention, the understanding of the benefits of breast-feeding, and the available types and new formulations of formula. Traditionally, professionals were expected to keep up with the current literature more or less on their own, but many of the reviewed initiatives included content-focused staff training. Examples include the formula training for WIC nutritionists and dietitians in California and the statewide conferences for WIC staff emphasizing obesity prevention in Oklahoma and Pennsylvania. (Although the Pennsylvania conference was not specifically on the Obesity Prevention Modules, it presented a lot of information about childhood obesity and its implications as a foundation for the implementation of this initiative.)

Staff training may also be needed to implement new approaches effectively. In Pennsylvania, state agency staff regretted that they had not done in-person training in the Obesity

Prevention Modules because of resource constraints. Training was left to local nutrition education coordinators. The state staff reported that some local agencies had implemented the modules much more than others.

To successfully introduce new training curricula or new client materials and curricula for a state initiative, state WIC agencies need to follow up at the local level to make sure the new approach, curricula, and materials are being used (and used appropriately) and to provide additional assistance to those who need it. Nutrition education committees can help, as they provide regular feedback to the state agency. State staff also observe nutrition education during regular program reviews and review nutrition education plans that local agencies have developed.

Another way to monitor implementation is to adapt data systems to track the types of nutrition education contacts made. For example, when they developed the Learn Together training, Michigan WIC staff also arranged for a code for facilitated group discussion to be added to the state data system. A further step that might be useful would be to develop a standard report that assessed use of this method versus other nutrition education methods.

c. Questions for Future Research

The nutrition education initiatives profiled here suggest the following questions for future research:

- ***Are the new approaches to presenting nutrition education to clients more effective than a lecture-style class in changing knowledge, attitudes, and behavior?*** As discussed further below, rigorous evaluation of these questions is much more feasible than for other types of WIC practices.
- ***Is formal staff training to present new content or techniques a useful investment?*** Is it effective to reduce the cost by using train-the-trainer sessions or videoconferences? Or would it be better to use (only) other types of resources—such as Web sites, listservs, or hotlines—to give WIC staff the information they need?
- ***Does participation in nutrition education increase when more interactive methods are used?*** Such an outcome would imply that more clients are at least hearing key messages.

3. Lessons from Service Delivery Programs

The innovations in service delivery examined in this report have the goal of improving access to WIC for those with barriers of time or distance, such as working parents and those in rural areas or other situations where transportation is not readily available.

Two of the programs reviewed—those in Cullman, Alabama, and northwest Michigan—incorporate WIC services into Medicaid-funded home visits as part of a broader, coordinated effort between WIC and Medicaid-funded care coordination for high-risk pregnant women and

infants. This collaboration seems to work well, in part because both programs are operated by the same agency and are co-located. However, this may not be feasible in places where two different agencies operate the programs, as has become more likely under Medicaid managed care. It would be interesting to learn whether there are examples of successful coordination between WIC and Medicaid managed care providers and, if so, whether such partnerships include home visits.

Workplace delivery of WIC services is not an option in all circumstances, but the program of the Eastern Band of Cherokee Indians suggests it may be worth considering, as more WIC participants are working full-time. In particular, it may be applicable in rural areas with few employers or other places where large concentrations of WIC participants work for a single employer. Privacy and logistics, such as having a private space to meet, can be challenges. However, WIC clinics have been established successfully in schools, which are the "workplaces" of teenage mothers—these programs may be useful models. Furthermore, employers should have some interest in cooperating, since a visit to a WIC nutritionist at work during a break can be much less time-consuming than taking off from work to go to an off-site WIC clinic.

C. FUNDING SOURCES

The interventions and training programs described in this report have a variety of funding sources, but they fall into three major categories (Table V.1):

1. WIC Plus—interventions with substantial outside funding (and often including services that go beyond WIC). The programs that provide home visits in cooperation with Medicaid care coordination are counted in this group, as the home visits are largely paid for by Medicaid funds.

2. Interventions with special WIC funding from the state, regional office, or central USDA. For example, some of the programs received large grants from WIC operational adjustment or infrastructure funds from USDA, others from their state agency.

   - Operational Adjustment Funds—the FNS regional offices allocate operational adjustment funds.[2] The Oklahoma and Texas programs each received large grants. The expansion of PITS in Hawaii, a fairly small-scale program, received a modest grant.

[2] FNS regional offices retain 10 percent of NSA funds allocated to the state agencies in their region to use for regional priorities; these are called "operational adjustment" funds. Some of these funds may be awarded to states through a competitive proposal process.

- Infrastructure Funds—Modest grants supported the planning and startup of the Wisconsin Bilingual Training program and were among several funding sources for the Alabama Prevention of Early Childhood Caries initiative.[3]
- State-allocated Funds—Riverside County received a "best practices grant" from the California State WIC agency for its "Lunch and Learn" program, above and beyond standard NSA funding.

3. Interventions with little or no special funding

It may be difficult for other WIC agencies to replicate programs with substantial outside or special WIC funding, if such resources are not available. In some cases, however, the well-funded initiatives have developed materials that other WIC agencies can adopt at much lower cost. In addition, other agencies may find specific elements of these initiatives' services applicable to their needs, even if they cannot afford to implement all the services.

Among the initiatives profiled, those that rely only on WIC NSA funds are generally more modest. Some are inexpensive, because they can be incorporated into existing local staff's activities, such as the Toledo-Lucas County breast-feeding class for teens, and the Arkansas and Hawaii breast pump programs. Some programs, such as the volunteer peer counseling program in southwest Pennsylvania, are developed specifically because funding is tight. In contrast, in large state or local agencies, the scale of the WIC program overall may make it possible to implement more expensive WIC initiatives with NSA funds—such as the California pediatric nutrition training for RDs (which involves several dedicated staff positions) or the Miami-Dade County breast-feeding support program. Furthermore, in many states (particularly large ones), some state staff members have program development among their regular responsibilities, so that tasks such as development of training materials are not seen as an extra cost.

In addition to funding constraints, staff time constraints are significant barriers for some nutrition education programs, as systems are set up so that WIC appointments are brief. Thus, adopting new nutrition education programs can require changes in WIC infrastructure (such as state performance standards or scheduling software).

D. OPTIONS FOR EVALUATION

This section summarizes what is known about the effects of the initiatives profiled in this report, as well as considerations for designing future evaluations of these or similar programs.

[3] Under current law, the Secretary of Agriculture is awarded a pool of WIC funds to allocate for various purposes, including strengthening of WIC infrastructure.

TABLE V.1

FUNDING SOURCES FOR WIC INITIATIVES

Program Name	State	Outside Funding	Special WIC Funding: Operational Adjustment	Special WIC Funding: Infrastructure	Special WIC Funding: State Grant	NSA Funds Only
Steps Ahead/WIC Coordination—Cullman County	AL	✓				
WIC Nutrition Education Model for Prevention of Early Childhood Caries	AL	✓		✓		
Breast Pumps for Mothers of Premature or Seriously Ill Infants	AR					✓
Cease Alcohol Related Exposure (CARE)	CA	✓				
Expanded Breast-Feeding Peer Counselor Program	CA	✓				
Loving Support Breast-Feeding Helpline—Riverside County	CA	✓			✓	
Lactation Consultant Services—Sacramento County	CA	✓				
WIC RD: Adjunct to Pediatric Health Care	CA					✓
Breast-Feeding Promotion and Support Program—Miami-Dade County	FL					✓
Mooove to Lowfat or Fat Free Milk Campaign	FL					✓
Pumps in the Schools (PITS)	HI		✓			
Coordination of WIC with Maternal and Infant Support Services	MI	✓				
The Learn Together Approach	MI					✓

TABLE V.1 *(continued)*

Program Name	State	Outside Funding	Special WIC Funding: Operational Adjustment	Special WIC Funding: Infrastructure	Special WIC Funding: State Grant	NSA Funds Only
WIC Services in the Workplace—Eastern Band of Cherokee Indians	NC					✓
Infant Feeding Classes for Pregnant Teens	OH					✓
Get Fit With WIC	OK		✓			
Obesity Prevention Modules	PA					✓
Telephone Peer Counseling by Volunteers	PA					✓
Breast-Feeding Peer Counselor Program	TX		✓			
Bilingual Training Program	WI			✓		

Note: All programs were funded in part by WIC NSA funds.

NSA = Nutrition Services and Administration.

1. Current Evidence Concerning Outcomes

Among the 20 programs examined, there was a rigorous impact evaluation in only one—the CARE program to screen for alcohol consumption among pregnant WIC mothers. In general, evidence of program impacts on nutritional and health outcomes is somewhat weak.

a. Evaluation Approaches

In most instances, the program was judged to be effective based on comparison of desired outcomes before and after the intervention occurred (particularly when the outcomes were measures that the programs already collected), with little or no controls for other factors that may be responsible for observed trends. For example, staff for many of the breast-feeding initiatives reported that breast-feeding rates had increased among their clients since the intervention started. However, breast-feeding rates have been increasing nationally, so it is possible that other factors are associated with the increases noted, besides the WIC initiative (Abbott Laboratories 2003).[4]

In other initiatives, the outcomes are sufficiently narrow that it seems unlikely factors other than the intervention are responsible for the trends. For example, it seems plausible that the formula training in California is at least partly responsible for the reduction in use of noncontract formulas that occurred. Similarly, initiatives to train staff in a new approach to nutrition education often judge their success simply by whether the new approach is in fact used consistently, which seems a valid measure as far as it goes (but does not address the ultimate outcomes of nutrition education).

In a few instances, agencies compared outcomes in clinics with and without the intervention available, but without controlling for (or only partly controlling for) other differences between the two sets of clinics.

More surprisingly, many of the programs studied had not tried to assess outcomes or impacts, at least so far—some mentioned plans to do so in the future. In these initiatives, they often judged the success of the initiative by the enthusiasm of staff and clients, which are probably necessary but not sufficient conditions for impacts. In all fairness, however, some of the interventions are sufficiently inexpensive and small (and have sufficient face validity) that a formal evaluation may not make sense. Examples include the teen breast-feeding classes in Toledo and the breast pump program in Arkansas. Table V.2 shows the extent of evaluation in each of the 20 programs. Most programs had not conducted formal evaluations with written reports; instead, the categories in Table V.2 characterize the types of information staff used to demonstrate that their program was successful.

[4] On the other hand, the work of WIC and other agencies on breast-feeding promotion may be at least partly responsible for the national trend.

TABLE V.2

EVALUATION APPROACHES USED

Program Name	State	Experimental Design	Comparison Group Design	Pre/Post Trend Comparison	Client and Staff Satisfaction	Future Evaluation Planned
Steps Ahead/WIC Coordination—Cullman County	AL				✓[a]	
WIC Nutrition Education Model for Prevention of Early Childhood Caries	AL					✓[b]
Breast Pumps for Mothers of Premature or Seriously Ill Infants	AR			✓	✓[a]	
Cease Alcohol Related Exposure (CARE)	CA	✓				
Expanded Breast-Feeding Peer Counselor Program	CA			✓	✓	
Loving Support Breast-Feeding Helpline—Riverside County	CA			✓	✓	
Lactation Consultant Services—Sacramento County	CA			✓		✓
WIC RD: Adjunct to Pediatric Health Care	CA			✓		
Breast-Feeding Promotion and Support Program—Miami-Dade County	FL			✓		
Mooove to Lowfat or Fat Free Milk Campaign	FL				✓[a]	
Pumps in the Schools (PITS)	HI					✓
Coordination of WIC with Maternal and Infant Support Services	MI				✓	
The Learn Together Approach	MI				✓[a]	
WIC Services in the Workplace—Eastern Band of Cherokee Indians	NC				✓	

TABLE V.2 *(continued)*

Program Name	State	Experimental Design	Comparison Group Design	Pre/Post Trend Comparison	Client and Staff Satisfaction	Future Evaluation Planned
Infant Feeding Classes for Pregnant Teens	OH				✓	
Get Fit With WIC	OK			✓	✓	✓[b]
Obesity Prevention Modules	PA					
Telephone Peer Counseling by Volunteers	PA		✓		✓	
Breast-Feeding Peer Counselor Program	TX			✓		
Bilingual Training Program	WI		✓		✓	

Note: "Evaluation" here means any assessment of program success, not necessarily a formal study.

[a]Formal survey conducted.

[b]Plans are tentative.

b. Key Findings

What findings concerning outcomes emerge from the evaluations that were conducted?

- The CARE evaluation gives strong evidence for the usefulness of a self-administered alcohol screening tool (instead of interview questions) in detecting pregnant women consuming alcohol (Whaley and O'Connor 2003). The researchers also found that administering the Brief Intervention protocol for those who were consuming alcohol reduced the proportion who reported alcohol consumption at their next visit, when compared to a short admonition not to drink during pregnancy. In this evaluation, 12 clinics were randomly selected for the intervention groups, then matched to 12 clinics not selected based on similar characteristics. The 12 intervention clinics were then randomly assigned to one of two groups: (1) 6 that offered the screening tool only, and (2) 6 that used both the screening tool and the Brief Intervention.

- Most of the breast-feeding promotion and support programs are in agencies in which breast-feeding rates among WIC mothers have increased since the program started. For example, breast-feeding rates at age 5 to 6 months increased from 30.4 to 34.3 percent in Sacramento County over the period June 2002 to February 2003; exclusive breast-feeding rates increased from 10 to 11 percent to 15 percent in Riverside over the period from 1999 to 2003. In addition, the Texas peer counselor coordinator reported that all agencies in Texas that had peer counseling programs had seen breast-feeding rates increase. Although it is not possible to rule out other factors, it seems plausible that the WIC breast-feeding programs are at least partly responsible.

- In the peer counseling program in Washington and Greene counties in Pennsylvania, the WIC director observed that the duration of breast-feeding increased in clinics with peer counselors but not in the clinics without peer counselors. However, she did not attempt to control for other factors—in particular, the clinics without peer counselors tended to be in more remote areas.

- The start of formula training for WIC dietitians in California was associated with decreased use of special formulas, as was the Arkansas program that provides breast pumps to mothers with premature or seriously ill infants. Again, the programs seem likely to be responsible, as they are targeted to providing alternatives to these formulas, but it is not possible to rule out other factors.

What is generally known about the other interventions is that staff and clients have responded positively; in some state initiatives, the state agency staff also monitors the extent to which new materials or approaches are used.

2. Data Needs

WIC local agency staff often lack the resources and skills to evaluate their programs. In addition, their data systems are not easily set up to track outcomes, other than those they must report to the state and federal governments. Although we did not systematically examine the

data systems in the initiatives profiled, in general we observed some key limitations in data available:

- Electronic data systems do not always have the types of process measures needed to examine the effects of nutrition education initiatives; for example, they may not track the specific lessons covered or if the contact was a facilitated discussion or a more formal class. Such tracking systems are important in evaluating the effects of specific methods.
- WIC agencies still rely extensively on hard-copy records.
- Even when the data are available, staff may not have the skills or time needed to produce reports.

FNS is working with state agencies on developing models for improved automated systems in WIC, so data and reports needed to manage and evaluate program services will become more readily available (U.S. Department of Agriculture 2003b).

3. Design Issues

Designing evaluations to assess the effects of the initiatives described in this report could be challenging. Some interventions affect the entire agency or community, so that it is not possible to randomly assign some clients to services without the intervention and others to receive the new services. Other initiatives can be evaluated more easily. For policymakers who might be interested in funding additional evaluations of some of the types of programs described here, this section considers the options for evaluating the various types of initiatives, and, in particular, the circumstances under which random assignment would be feasible.

Implementation Studies. As a preliminary step, more rigorous implementation studies could be of interest. In particular, it is important to judge a program not only by examining its goals and design, but also by monitoring staff use of new services or methods and the quality of implementation of the planners' vision. Programs that are not implemented successfully are unlikely to have the desired effects. An implementation study of peer counseling programs could involve, for example, observing or reviewing records of peer counseling sessions to assess whether appropriate protocols were followed. A study of a new nutrition education method could examine how well staff use the method, client attendance at sessions, and satisfaction among clients who attend.

Experimental Evaluation. In a large clinic, it might be feasible to assign individuals randomly to receive nutrition education under one of two different approaches (for example, lecture versus facilitated group discussion), provided the frequency of contacts and the information covered were the same for both groups. This approach is ethical in that both ways of providing the service are plausibly effective, so it is not clear that clients are receiving more or better services under one intervention. However, it may be unduly burdensome to expect staff in a clinic to be prepared to offer two different approaches.

Another option, if the WIC agency operates many clinics, is to randomly assign clinics to different interventions, as was done in the CARE study. Such a design is most appealing in large agencies in which the populations the clinics serve are relatively similar. If such an evaluation were conducted at the state level, it might be useful to select matched pairs of clinics from a wide range of agencies, then randomly assign one clinic in each pair to the new approach and the other to the existing approach. However, a state-level evaluation would require substantial resources.

For initiatives that affect the entire atmosphere of the WIC clinics and the community in which they are located (such as Florida's Mooove campaign and the Riverside Loving Support program), the only possible random assignment evaluation would be to randomly assign matched local agencies (and their communities) to the new initiative or the existing approach. Such an approach is both expensive and difficult to implement. Matching of communities is likely to be imperfect, and obtaining cooperation with a demonstration at the community level will not always be feasible. Furthermore, because WIC is a decentralized program, "the existing approach" is likely to differ substantially from place to place.

Nonexperimental Evaluations. It may be more feasible to evaluate WIC initiatives using comparison groups or pre/post evaluations, building on the comparisons used to assess outcomes in many of the initiatives studied. The large amount of variation in services provided in local WIC agencies may facilitate comparisons between service approaches. Few of the programs studied, however, had attempted to control for other factors that might explain observed trends (or differences between the program group and a comparison group). By collecting data on the characteristics of the clients, clinics, or agencies being compared, comparison group evaluations can be strengthened. Such data make it possible to control, at least in part, for how differences other than the initiative being tested affect the outcomes of interest. Similarly, before/after comparisons can be strengthened by controlling for other factors that change over time. To collect control variables may require augmenting WIC automated systems or conducting surveys. At the same time, even when carefully designed, these designs are weaker than an experimental design. Other factors than the initiative may still be influencing the outcome, but may not be available as control variables. Nonetheless, such approaches are less expensive, and they may provide evidence of impacts, particularly if the differences in outcomes are large.

E. REPLICATING AND ADAPTING WIC INITIATIVES: ISSUES AND CHALLENGES

All the initiatives described in this report involve models for providing services that could be applied more widely. This section describes the issues that USDA or state agencies would need to consider before replicating any of these initiatives, either on a pilot basis or on a wider scale. These issues are:

- Is the program affordable with existing WIC resources? If not, are there options for obtaining additional funding? Does the program require an up-front investment with few costs afterward, or does it require long-term funding?
- For what types of WIC agencies is the initiative appropriate? For example, is the program of most interest to urban or rural agencies?

- Are materials for replicating the program readily available? Do they include materials for training staff? How much adaptation would be required for state or local circumstances?
- Will these initiatives need to be modified in light of current and future WIC challenges, such as increased ethnic diversity, larger proportions of WIC mothers working, changes in the health care environment, and state funding shortfalls?

1. Program Cost

The first question to address in deciding whether to replicate an initiative is how much it will cost. A number of factors affect the cost of replicating these initiatives. For example, the availability of materials that have already been tested can reduce the cost for future adopters. In contrast, programs that are costly on an ongoing basis may be more difficult to adopt than programs that require an up-front investment in training but do not substantially affect costs of ongoing operations.

A related issue is whether adequate funding is available. More costly programs may be worthy of further testing if they are expected to result in long-term savings or if other organizations—such as universities, foundations, nonprofit organizations, or other government agencies—may be interested in funding the program.

2. Appropriate Setting

WIC is a highly decentralized program, and few initiatives will be appropriate in all types of WIC agencies and clinics. In this study, differences in the needs and abilities of rural versus urban agencies (particularly large urban agencies) stood out.

Small, rural agencies have more potential for integrating WIC and other services and tend to provide more personalized services. Services can be integrated more readily because it is often true that "everyone does everything," or, if they have questions about another program, they simply need to walk down the hall to get an answer or resolve a problem. As discussed in Chapter IV, even in these settings, service integration requires planning and commitment. Another strength of rural agencies may be more personalized services, in part because "everybody knows everyone," and in part because caseloads may be smaller. Furthermore, staff members may stay with WIC longer, as WIC positions compare more favorably with other local professional opportunities in rural areas than in urban ones. A stable staff can get to know families over time.

However, rural agencies often face challenges that urban agencies do not. They may have more difficulty meeting specialized needs, such as bilingual professional staff (who can be difficult to recruit even in urban areas). The Wisconsin initiative was designed to address this type of situation. The northwest Michigan WIC agencies reported that lack of Spanish-speaking staff was a concern at times. In addition, they may have more difficulty sending staff for specialized training because of both distance and the lack of back-up staff to keep services functioning. Finally, although lack of transportation is a barrier for many WIC families in both

urban and rural areas, the problem tends to be more acute in rural areas, as they have little or no public transportation.

In contrast, large urban agencies may have more ability to train staff and increase efficiency through specialization, but they almost inevitably are less personal and more bureaucratic, which makes collaborations with other programs more difficult. Caseloads may also be higher and staff turnover more frequent. Creating initiatives, such as peer counseling programs, in which clients receive one-on-one attention outside of their regular WIC appointments, may be more critical in these agencies.

3. Ease of Adoption

Initiatives based on written materials are easiest to adopt. Many of the initiatives in this report have made materials available on the Internet, and we provide the Web sites here for those who are interested. Others could do so, or could provide hard copies. In some instances, materials could be used with little change (for example, the Florida Mooove campaign materials or the Get Fit With WIC materials), while, in others, materials need to be adapted to local conditions (for example, the California Formula Guidebook, which other states would need to tailor to the specifications of their formula rebate contracts and their regulations).

Even if materials are available, it is easiest to adopt those that are relatively self-explanatory, rather than those for which staff need extensive training. For example, the Florida Mooove campaign would be much easier to adopt than the Learn Together Approach, which requires two days of training.

Initiatives that are not based on written materials pose other challenges for replication. Staff adopting the program may need to make site visits to the original program, attend training sponsored by the original program, or arrange for staff from that program to come and train the staff newly adopting the initiative. Examples include the collaborations between WIC and Medicaid managed care and the services provided by the Riverside breast-feeding representatives. For these types of initiatives, the up-front investment in setting up the program may be larger.

4. Challenges for the Future

In considering the feasibility of new initiatives, it is important to take into account the following challenges for WIC in the next several years:

- ***Cultural Diversity.*** The WIC population is becoming more diverse ethnically and linguistically. In particular, Hispanics have grown steadily as a proportion of the WIC population and, in 2002, were 38 percent of participants, a larger group than non-Hispanic whites (U.S. Department of Agriculture 2003c). California WIC agencies may be the most advanced in addressing this challenge. In the Riverside county WIC agency, a large proportion of staff is bilingual, and all written materials are available in both English and Spanish. Berkeley WIC has hired peer counselors

who speak a wide range of languages, but Sacramento WIC is still trying to expand the availability of Spanish-speaking staff with lactation training. The Wisconsin bilingual training initiative is an attempt to serve pockets of Hmong and Spanish speakers better.

- ***Mothers Working.*** With welfare reform and the strong economy of the late 1990s, more WIC mothers were working. This trend may have slowed, but it is unlikely to reverse. One implication is that peer counseling programs that rely on volunteer or part-time help are less feasible now than they were 10 years ago. Another implication is that WIC needs to develop approaches to improve access for working parents, such as extended hours, more telephone contacts, or workplace WIC visits.

- ***Changes in the Health Care System.*** Coordination between WIC and health care providers is often critical to the WIC initiatives profiled. For example, WIC peer counselors coordinate with hospital maternity staff to provide counseling in hospitals, and WIC staff coordinate with Medicaid home visiting programs to provide food instruments during home visits. However, experiences during the past few years suggest that such coordination becomes more difficult as Medicaid managed care providers serve more WIC clients. Furthermore, the privacy rules used to implement the Health Insurance Portability and Accountability Act (HIPAA), which took effect in April 2003, make coordination more difficult. In northwest Michigan, WIC and health records need to be kept separately, even though this involves duplication of effort. HIPAA may also make it more difficult for WIC peer counselors to obtain access to hospital maternity wards.

- ***State and Federal Budget Crises.*** State and federal budget crises may lead to cutbacks in WIC funding and staff, which make implementation of new approaches more difficult. Several of the programs profiled were facing layoffs or the possibility of other cutbacks. In talking with a range of WIC staff, our impression is that funding constraints are more of an issue in some places than others. Furthermore, special funding sources such as those provided through California's Proposition 10 are not available everywhere. One way to address this is to emphasize that "WIC Plus" initiatives are optional and not expected of WIC programs everywhere. At the same time, some of the initiatives discussed in this report have low costs and may even save WIC money.