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Innovative WIC Practices

Profiles of 20 Programs

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Abstract

WIC provides supplemental food, nutrition education, and social service referrals to low-income pregnant, breastfeeding, and postpartum women, infants, and children younger than age 5. WIC has come under increased scrutiny as it has expanded rapidly, and some have suggested new directions for the program. This study examines a range of innovative practices at 20 State or local WIC agencies. The study focuses on practices in three main areas: breastfeeding promotion and support (including peer counseling and programs for high-risk groups), nutrition and health education (including obesity prevention, preventive health care, and staff training), and service delivery (such as home and workplace visits). For each innovative program, the report provides background information and discusses the source of the innovation, key challenges, implementation lessons learned, evidence of its success, and the feasibility of replicating the practice.

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CONTENTS

Chapter	Page
EXECUTIVE SUMMARY	vii
I INTRODUCTION	1
A. GOALS OF STUDY	3
B. RESEARCH METHODS	4
C. PREVIEW OF MAJOR THEMES	5
II BREAST-FEEDING SUPPORT PROGRAMS	9
A. PEER COUNSELING	10
Breast-feeding Peer Counseling Program, Texas	11
Expanded Breast-feeding Peer Counselor Program, Alameda/Contra Costa Counties, California	25
Telephone Peer Counseling by Volunteers, Southwest Pennsylvania.....	33
B. MULTIFACETED PROGRAMS WITH STRONG OUTREACH COMPONENTS	41
Loving Support Breast-feeding Program, Riverside County, California.....	43
Lactation Consultant Services, Sacramento County, California.....	57
Breast-feeding Promotion and Support Program, Miami-Dade County, Florida	69
C. PROGRAMS FOR HIGH-RISK GROUPS.....	79
Breast Pumps for Mothers of Premature or Seriously Ill Infants, Arkansas.....	81
Pumps in the Schools (PITS), Hawaii.....	89
Infant Feeding Classes for Teens, Lucas County, Ohio.....	95

CONTENTS *(continued)*

Chapter	Page
III	ENHANCING NUTRITION EDUCATION.....103
A.	OBESITY PREVENTION INTERVENTIONS.....104
	Get Fit With WIC, Oklahoma.....105
	Obesity Prevention Modules, Pennsylvania121
	Moovve to Lowfat or Fat Free Milk Campaign, Florida129
B.	PREVENTIVE HEALTH INTERVENTIONS139
	WIC Nutrition Education Model for the Prevention of Early Childhood Caries, Alabama.....141
	Cease Alcohol Related Exposure (CARE), Los Angeles and Orange Counties, California153
C.	STAFF TRAINING: IMPROVING METHODS, NUTRITION KNOWLEDGE, AND CULTURAL SENSITIVITY.....161
	The Learn Together Approach, Michigan.....163
	WIC RD: Adjunct to Pediatric Health Care, California171
	Bilingual Training Program, Wisconsin177
IV	INNOVATIONS IN SERVICE DELIVERY183
	Coordination of WIC with Maternal and Infant Support Services, Northwest Lower Michigan185
	Steps Ahead/WIC Coordination, Cullman County, Alabama.....197
	WIC Services in Workplaces, Eastern Band of Cherokee Indians, North Carolina205
V	CONCLUSIONS.....211
A.	SOURCES OF INNOVATION211
B.	IMPLEMENTATION LESSONS213
	1. Lessons from Breast-Feeding Programs213
	2. Lessons from Nutrition Education Programs.....215
	3. Lessons from Service Delivery Programs.....217
C.	FUNDING SOURCES.....218

CONTENTS *(continued)*

Chapter	Page
D. OPTIONS FOR EVALUATION	221
1. Current Evidence Concerning Outcomes.....	222
2. Data Needs	225
3. Design Issues	226
E. REPLICATING AND ADAPTING WIC INITIATIVES: ISSUES AND CHALLENGES	227
1. Program Cost	228
2. Appropriate Setting.....	228
3. Ease of Adoption.....	229
4. Challenges for the Future.....	229
REFERENCES.....	231
APPENDIX A: PROCEDURES FOR SELECTING PROGRAMS AND COLLECTING DATA	A.1
APPENDIX B: PROTOCOLS	B.1

CONTENTS *(continued)*

Chapter **Page**

TABLES

Table **Page**

I.1	RESEARCH QUESTIONS AND TOPICS	4
I.2	SELECTED PROGRAMS AT A GLANCE	6
II.1	BREAST-FEEDING SUPPORT SERVICES AVAILABLE IN MIAMI, RIVERSIDE, AND SACRAMENTO.....	41
V.1	FUNDING SOURCES FOR WIC INITIATIVES.....	220
V.2	EVALUATION APPROACHES USED	223

EXECUTIVE SUMMARY

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves low-income pregnant, breast-feeding, and postpartum women; infants; and children younger than age 5. Its objective is to provide supplemental, nutritious food as an adjunct to good health care during critical periods of growth and development, prevent health problems, and improve the health status of participants. The WIC program has three components: (1) the food package, (2) nutrition education, and (3) health and social service referrals.

In recent years, WIC has come under scrutiny as the program expanded rapidly. WIC is up for reauthorization by Congress in 2004, so it is an appropriate time to consider new directions for the program. Mathematica Policy Research, Inc. (MPR) proposed to the Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA) this exploratory study, to document and disseminate information on the design and operation of a range of WIC innovations.

The primary objective of this study was to learn about the innovations currently in place in state and local WIC agencies. The plan was to identify innovative practices at 20 state or local WIC agencies, conduct telephone interviews with staff from each program, and study 5 of these promising programs in more depth through site visits. The study focused on WIC practices in three areas:

1. Promoting breast-feeding (including peer counseling, outreach to health care providers, and breast pump programs)
2. Improving nutrition and health education (including programs to prevent or reduce overweight and obesity; to provide, or coordinate with, preventive health care in areas such as dental health; and to provide in-depth staff training)
3. Using innovative service delivery approaches, such as home visits

Many of the programs we studied are innovative in more than one of these areas.

Another goal was to include at least some programs that serve high-risk groups, such as teenagers, premature infants, immigrants, and those with alcohol or drug abuse problems.

The following research questions guided our work:

- What innovative WIC programs and services currently exist?
- Under what circumstances are promising WIC programs being implemented?
- Are the programs replicable in other service areas? Is there evidence to support their effectiveness?

CRITERIA FOR SELECTING PROGRAMS

This study was exploratory. The programs selected were *not* intended to indicate the “best” programs nationally, as our time to find programs and our resources were limited. Instead, we sought to identify promising initiatives that may be worthy of future evaluation and replication.

For this study, we defined “innovative” as programs that are different from services that WIC has traditionally offered, based on the judgments of program officials. The programs include those that the WIC Nutrition Services Standards (U.S. Department of Agriculture 2001) would consider “best practices”—for example, peer counseling for breast-feeding; programs that received outside funding to go beyond typical WIC nutrition services (sometimes referred to as “WIC Plus”); and innovations that significantly change how core WIC services are delivered (such as training in facilitated group discussion). Most programs had operated for at least one year. In addition, we sought to include programs that have clear goals and adequate resources to achieve them and that have largely implemented the intended services.

An important caution is that designating these programs as “innovative” *does not* imply that they have been evaluated and found to be effective in improving health outcomes for targeted groups.

DATA COLLECTION

To select programs to profile, we contacted the Food and Nutrition Service (FNS) regional offices, state and tribal WIC directors, and other experts to gather suggestions on promising programs. Based on their feedback and consultation with USDA staff, we selected 20 programs to contact by telephone to gather detailed information on their scope, services, and replicability in other settings.

After completing the telephone interviews, we selected five of the programs for site visits. These visits included interviews with program staff and observations of program activities. Programs selected for site visits represented the topic areas described above. In each case, the program was sufficiently complex that a site visit enabled us to understand it much better. Three of the visited programs were statewide programs, for which we visited several locations and interviewed both state and local staff.

WHAT TYPES OF INNOVATIVE PROGRAMS EXIST?

Table 1 provides an overview of the selected programs. They fall into three main areas: (1) breast-feeding promotion and support; (2) nutrition and health education programs (including programs related to preventive health care, obesity prevention, and staff training); and (3) service delivery innovations.

TABLE 1
SELECTED PROGRAMS AT A GLANCE

Topic Area and Program Name	State	Program Scope		Selected for Site Visit
		State-Level	Local-Level	
Breast-Feeding Promotion				
Peer Counseling				
Breast-Feeding Peer Counselor Program	TX	✓	✓	✓
Expanded Breast-Feeding Peer Counselor Program— Berkeley Area	CA		✓	
Telephone Peer Counseling by Volunteers	PA		✓	
Multifaceted Programs				
Loving Support Breast-Feeding Helpline— Riverside County	CA		✓	✓
Lactation Consultant Services—Sacramento County	CA		✓	
Breast-Feeding Promotion and Support Program— Miami-Dade County	FL		✓	
Programs for High-Risk Groups				
Breast Pumps for Mothers of Premature or Seriously Ill Infants	AR	✓		
Pumps in the Schools (PITS)	HI	✓		
Infant Feeding Classes for Pregnant Teens	OH		✓	
Nutrition and Health Education				
Obesity Prevention				
Get Fit With WIC	OK	✓		✓
Obesity Prevention Modules	PA	✓		
Mooove to Lowfat or Fat Free Milk Campaign	FL	✓		
Preventive Health Care				
WIC Nutrition Education Model for Prevention of Early Childhood Caries	AL	✓		✓
Cease Alcohol Related Exposure (CARE)— Los Angeles area	CA		✓	
Staff Training				
The Learn Together Approach	MI	✓		
WIC RD: Adjunct to Pediatric Health Care	CA	✓		
Bilingual Training Program	WI	✓		
Service Delivery				
Coordination of WIC with Maternal and Infant Support Services—northwest lower Michigan	MI		✓ ^a	✓
Steps Ahead/WIC Coordination—Cullman County	AL		✓	
WIC Services in the Workplace—Eastern Band of Cherokee Indians	NC		✓	

^aThe program is in several counties, so telephone respondent was a state WIC staff member with responsibility for the area.

Breast-Feeding Programs

The breast-feeding support programs described in this report go beyond the required services, which include staff training, offering clients prenatal breast-feeding education (through classes and/or one-on-one contacts, and written materials and/or videos), informing clients about the food packages for breast-feeding mothers, and providing, or referring to, support services after the birth. The innovative breast-feeding programs fall into three groups:

1. **Peer Counseling.** Peer counselors usually are current or former WIC clients who breast-fed their babies for a substantial period. Peer counselors may be volunteer or paid, part-time or full-time, and they may have different levels of training. The breast-feeding coordinator (who is a certified lactation consultant) usually trains and supervises the peer counselors and provides back-up support for unusual or high-risk situations.
2. **Multifaceted Programs.** These programs include readily available individualized help, either by telephone or in person, complemented by extensive outreach to community health professionals to “sell” the idea that WIC supports breast-feeding and is not just a source for infant formula. Types of outreach include training for hospital delivery and neonatal intensive care staff, extensive visiting with local health care providers, “lunch and learn” presentations for health care professionals on why breast-feeding is best, and networking with a wide range of community groups.
3. **Programs for High-Risk Groups.** Programs profiled target (1) mothers of premature or seriously ill infants, or (2) teenage mothers. Two programs facilitate use of breast pumps for high-risk groups, while one is a prenatal breast-feeding class that targets teenage expectant mothers.

Nutrition and Health Education Programs

WIC has always provided nutrition education and counseling to clients, often through one-on-one counseling and lecture-style classes. In recent years, many WIC programs across the country have reinvigorated and updated their approaches to nutrition and health education. Programs we examined fall into three groups—obesity prevention, preventive health care, and staff training—yet are all examples of strategies to strengthen and broaden the nutrition education and counseling provided through WIC.

In looking at programs that offer innovative nutrition and health education, we found some common themes:

- **New Methods for Working with Clients.** Staff members are learning to use approaches such as facilitated group discussions and motivational interviewing to help clients change their behavior.
- **Updated Education Content.** Programs are working to include nutrition messages related to today’s main nutrition-related health concerns in a positive framework of healthy eating and lifestyle choices. Relevant programs include those related to

obesity prevention and healthy lifestyles for young children (including physical activity), preventive dental care, and screening for alcohol problems for prenatal participants.

- **Broader Target Audience.** WIC nutrition education has traditionally focused on mothers, but initiatives increasingly target young children and the family as a whole. For example, several programs include activities for children, such as puppet shows and reading of children's books related to the theme of the initiative.
- **More Staff Training.** Many of the programs involve special training—some focused on methods, some on content, and some on new groups of staff. The study focused on a training program in each of these areas: the Michigan training in facilitated group discussion, California's approach to training dietitians concerning infant formulas, and Wisconsin's program to train bilingual staff.

Service Delivery

The study included three programs that are innovative because they include delivery of WIC services in one of two nontraditional settings: (1) clients' homes, or (2) clients' workplaces. Because of its high cost, home visiting usually implies not just services in a different location, but comprehensive, individualized services that target particularly high-risk clients. In both examples of home visiting programs in this report, WIC was collaborating with Medicaid care coordination for high-risk pregnant women and infants. The home visits were funded largely under Medicaid, although they also included some WIC services.

Workplace visits to provide WIC services are even more rare than home visits. However, because more WIC mothers have entered the workforce under welfare reform, such programs may become more relevant. The program described here is on a rural Indian reservation with few employers and significant transportation barriers for clients.

WHAT CIRCUMSTANCES SUPPORT IMPLEMENTATION OF INNOVATIVE PROGRAMS?

Sources of Innovation

Where do ideas for innovative programs come from? Most of the programs we studied were conceived and developed by the state or local WIC staff who administer them, although 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: this happened through formal nutrition education committees consisting of local and state staff, through feedback provided to regional representatives in states with a regional structure, through pilot projects, or informally.

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 further. For example, the availability of funding from the Proposition 10

tobacco tax in California, which is for programs for young children, helped inspire several of the California programs. In contrast, a volunteer peer counseling program in southwest Pennsylvania was a creative response to tight funding.

Programs with outside funding were sometimes developed, at least in part, outside of WIC, or reshaped to meet the funders' needs. For example, the Alabama dental education program was developed with considerable leadership from the Dental Division of the Department of Health, which also helped fund the program.

Key Implementation Lessons

Breast-Feeding Peer Counseling. USDA has targeted funds for expansion of peer counseling programs. As peer counseling programs expand, it will be 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—seem well established, but there may also be variation in additional requirements for the job. Peer counselors need sufficient literacy skills so that they can maintain WIC clients' records. It is also important to develop a recruitment and retention strategy, clear protocols for service delivery and documentation, and good relations between the WIC staff and peer counselors.

Recruiting of peer counselors has become more challenging as low-income mothers have increasingly taken full-time jobs. 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.

Other Implementation Lessons for 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 telephone 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.
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. However, such outreach is hard to do with current WIC Nutrition Services and Administration (NSA) funding, even in large agencies—those programs most successful in doing outreach have non-WIC funding.

Nutrition Education Approaches. Programs that seemed particularly promising were those that made nutrition education fun for staff and clients and those that had messages that were simple (such as “choose lowfat or fat free milk”) and pervasive (visible in a range of media, endorsed enthusiastically by staff at all levels, and reinforced through hands-on activities), yet conveyed in ways that recognized client experiences.

Staff Training. Direct staff training in content is useful, because the science is changing rapidly in many areas of nutrition, including obesity prevention, the understanding of the benefits of breast-feeding, and the content of new types or formulations of formula. Traditionally, professionals were expected to keep up with the literature more or less on their own, but many of the reviewed initiatives included content-focused staff training.

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 made up of local staff can help, as they provide regular feedback to the state agency. Another way to monitor implementation is to adapt data systems to track how often staff use new types of nutrition education contacts with clients.

Service Delivery. Incorporating WIC services into Medicaid-funded home visits seems promising, particularly as part of a broader integration of WIC services and Medicaid-funded care coordination for high-risk pregnant women and infants. This collaboration may work best, however, when both programs are operated by the same agency and are co-located.

Workplace delivery of WIC services may be most 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.

Funding Sources

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

1. WIC Plus—interventions with substantial outside funding (often including services that go beyond WIC). Such funding usually comes from local governments or private foundations. The programs that provide home visits in cooperation with Medicaid care coordination are also 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 grants from USDA or from their state agency.

3. Interventions with little or no special funding, which are generally more modest. In large state or local agencies, however, the scale of the WIC program overall may make it possible to implement more extensive WIC initiatives with only WIC NSA funds.

It may be difficult for other WIC agencies to replicate programs with substantial outside or special WIC funding, if similar 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.

PROGRAM EVALUATION AND REPLICATION

To assess whether these interesting programs should be expanded further, it is appropriate to consider the quality of existing evidence for their effectiveness and what types of evaluation designs could be used to study program effects on nutrition and health outcomes. Before replicating these programs, other issues to consider include cost, feasibility, and adaptability of the program model to different situations.

Evaluating Effectiveness

Staff of many of these programs had tried to evaluate their effectiveness. Only one, however—the Cease Alcohol Related Exposure (CARE) program in Los Angeles—had a rigorous evaluation. Others cited more ad hoc before and after comparisons of outcomes such as breast-feeding rates and use of special infant formulas. Such comparisons are useful but do not generally control for other factors that might also have caused the change. The main reason is that WIC local agency staff often lack the resources and skills to evaluate their programs. In addition, their data systems usually are not set up to track outcomes, other than those they must report to the state and federal governments.

Furthermore, 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 current services and others to receive the new services. Other initiatives might lend themselves to evaluation more easily.

Options for evaluation include:

- ***Implementation Studies.*** 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. In addition, implementation studies monitor how many clients actually receive the innovative services and what their reactions to these services are.
- ***Experimental Impact Evaluations.*** Randomly assigning clients to two different types of services may be feasible in a large clinic, but it is burdensome for staff to run

two versions of WIC services. Another, less difficult, option for staff is to randomly assign clinics in a large agency to two different approaches. Doing this, however, is useful only for narrowly defined interventions (for example, the use of facilitated group discussion versus a lecture style for specific classes), when it is possible to ensure that clients otherwise receive the same services. For more comprehensive, community-based interventions, it is not possible to deny the new program to some clients. The only type of experimental evaluation that could happen in such contexts is random assignment of communities, which is very expensive and may not be feasible in terms of obtaining cooperation.

- ***Nonexperimental Impact Evaluations.*** It may be more feasible to evaluate WIC initiatives using comparison groups or evaluations of outcomes before and after program implementation. The diversity of local WIC programs makes it more feasible to use existing variations in services to examine relative effectiveness of different approaches. By collecting data on the characteristics of the clients, clinics, or agencies being compared, comparison group evaluations can be strengthened. 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 may provide evidence of impacts, particularly if the differences in outcomes are large.

Feasibility of Replication

All the programs described in this report involve models for providing services that could be applied more widely. USDA or state agencies would need to consider the following issues (in addition to program effectiveness) before replicating any of these initiatives, either on a pilot basis or on a wider scale:

- ***Cost.*** Is the program affordable, either with existing WIC resources or available outside funding? Does the program require an up-front investment with few costs afterward, or does it require long-term funding? Are the benefits of the program likely to be worth the costs?
- ***Appropriate Setting.*** For what types of WIC agencies is the initiative appropriate? For example, is the program of most interest to urban or rural agencies? WIC is a highly decentralized program, and few initiatives will be appropriate in all types of WIC agencies and clinics.
- ***Availability of Materials.*** Are materials for replicating the program readily available? Do they include materials for training staff? How much adaptation would state or local circumstances require? Initiatives based on written materials are easier to adopt, as are those that do not require extensive staff training. Many of the initiatives profiled have made their materials available on the Internet.

In considering the feasibility of new initiatives, it is also 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.
- ***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. 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.
- ***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.

SUMMARY

This study shows that many innovative WIC practices exist in breast-feeding promotion, nutrition and health education, and service delivery. Breast-feeding practices highlighted include those of various peer counseling programs, as well as those of programs that combine outreach to health professionals with extensive client support. Innovations in nutrition education focus on moving from sharing information to fostering behavior change and on meeting the needs of the increasingly diverse WIC population. Service delivery innovations bring WIC services to clients at home or at work. Most innovative programs arise in response to local needs and circumstances; state innovations appear to be more successful if they obtain substantial local input. The extent of outside funding for innovative programs varies and is related to the richness of services provided. At the same time, many of the programs have invested extensively in developing materials that others could adopt at low cost.

Few of these interventions have been rigorously evaluated. However, substantial natural variation in WIC services exists, and this variation could be used in more formal evaluation efforts.

I. INTRODUCTION

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves low-income pregnant, breast-feeding, and postpartum women; infants; and children younger than age 5. Its objective is to provide supplemental, nutritious food as an adjunct to good health care during critical periods of growth and development, to prevent health problems and improve the health status of participants. The WIC program has three components: (1) food packages tailored to the needs of each participant group, (2) nutrition education, and (3) health and social service referrals. The food packages include supplemental foods rich in protein, vitamins A and C, calcium, and iron. Nutrition education is offered to all women participants and parents of child participants to improve their knowledge of the relationship between diet, nutrition, and good health. Health and social service referrals help participants find needed services.

Since its inception, the WIC program has grown dramatically. In fiscal year 1980, WIC served 1.9 million women and children, at a cost of \$728 million. By fiscal year 2002, WIC was serving 7.5 million women and children, at a cost of \$4.3 billion (U.S. Department of Agriculture 2003a). From 1988 to 1998, WIC monthly enrollment levels more than doubled, and participation among children increased as a percentage of all WIC participants (Cole 2001).

In recent years, WIC has come under scrutiny as the program expanded rapidly. WIC is up for reauthorization by Congress in 2004, so it is an appropriate time to consider new directions for the program. A substantial body of evidence exists on the effectiveness of WIC (Rush et al. 1988; Devaney et al. 1992; Gordon and Nelson 1995; and Rose et al. 1998). However, a recent critique of this research questioned the extent to which the empirical evidence supports the WIC program expansion (Besharov and Germanis 2001). Besharov and Germanis also suggested program design and operational options, including the six listed here:

1. Targeting benefits and services to fewer, needier families
2. Adding a focus on overweight and obesity prevention
3. Offering more intensive WIC services (such as home visits) and higher levels of benefits for selected groups
4. Serving children older than age 4
5. Using alternative service providers and co-locating WIC and other health care services
6. Increasing directive counseling to bring about behavioral change

The first recommendation (to the extent it calls for serving fewer families), the third recommendation (where it refers to benefits), and the fourth recommendation refer to options that current WIC rules do not allow. Similarly, WIC rules do not allow agencies to require participation in specific services as a condition for receiving benefits (part of what Besharov and

Germanis mean by directive counseling). Nonetheless, at the March 2002 meeting of the National WIC Association, where Besharov and Germanis presented these ideas, many state and local WIC directors reported that some local WIC programs were already implementing innovative nutrition services along the lines of recommendations 1 (targeting services to high-risk groups), 2 (obesity prevention), 3 (more intensive services), 5 (coordination and co-location), and 6 (more focus on behavioral change). However, policymakers have little information about many of these innovative WIC practices. As a result, Mathematica Policy Research, Inc. (MPR) proposed to the Economic Research Service (ERS) of the U.S. Department of Agriculture (USDA) that MPR could help fill this gap by documenting and disseminating information on the design and operation of a range of WIC innovations.

The Besharov and Germanis critique occurred when federal WIC policy had already moved to improve WIC nutrition services in several areas. It had (1) targeted funds for breast-feeding promotion and support, (2) started an initiative to revitalize nutrition education, and (3) funded a large research study of obesity prevention programs.

Since 1989, a portion of WIC Nutrition Services and Administration (NSA) funding has been designated by law for breast-feeding promotion and support. The existence of this assured funding stream for more than a decade implies that breast-feeding programs, including the most innovative, tend to be more fully developed and implemented than other types of nutrition education reforms. Core services related to breast-feeding promotion and support include (1) designating breast-feeding coordinators at the state and local levels; (2) training staff in breast-feeding promotion and support; (3) integrating breast-feeding promotion into prenatal education contacts and assessing women's knowledge, concerns, and attitudes about breast-feeding; and (4) making all prenatal participants aware of the special food packages for breast-feeding women.¹ Core services postpartum include the food packages and provision of, or referral to, support for breast-feeding mothers. Many local WIC agencies also have at least one certified lactation consultant or educator on staff.

In 1999, USDA's Food and Nutrition Service (FNS) began an initiative for "Revitalizing Quality Nutrition Services" (RQNS) in WIC. This initiative has two key components. First, FNS worked with the WIC community to update the Nutrition Services Standards to provide a tool for state and local staff to monitor the quality of their services (U.S. Department of Agriculture 2001). Second, FNS has targeted annual Special Project Grants to state agencies since fiscal year 1995 to plan and implement model programs and share materials from these programs with others. The WIC Works Web site [www.nal.usda.gov/wicworks] is also part of this effort—it provides resources for WIC nutrition educators online and allows state and local staff to share their experiences.

USDA has also recognized growing concerns about child obesity. In fiscal year 1999, FNS awarded Special Project Grants to five states to develop and test WIC programs that targeted prevention of childhood obesity. We did not study these "FIT WIC" projects for this report,

¹ We include as "core" WIC services those that the WIC Nutrition Services Standards identify as mandatory or recommended.

since an implementation report on them was recently completed (U.S. Department of Agriculture 2003) and a final report is forthcoming.

A. GOALS OF STUDY

The primary objective of this study was to learn about the innovations currently in place in state and local WIC agencies. We sought to identify innovative practices at 20 state or local WIC agencies and to study 5 promising programs in more depth through site visits. We focused on WIC practices that (1) promote breast-feeding and appropriate infant feeding practices (such as proper use of special formulas, appropriate timing for introduction of solid foods, and healthy feeding relationships); (2) improve nutrition and preventive health education through new approaches and staff training in these approaches; and (3) use innovative service delivery approaches, such as home visits. Many of the programs studied are innovative in more than one of these areas. In addition, we looked for some programs that serve high-risk groups, such as teenagers, premature infants, immigrants, and those with alcohol or drug abuse problems.

For this study, we defined “innovative” as programs that are different from services that WIC has traditionally offered (a somewhat deliberately vague definition, because we wanted WIC officials we contacted for nominations to give us their perspective on what was innovative). The initiatives we ultimately identified as innovative include those that the WIC Nutrition Services Standards (U.S. Department of Agriculture 2001) would consider “best practices”—for example, peer counseling for breast-feeding; services that go beyond typical WIC nutrition services (sometimes referred to as “WIC Plus”)—such as dental education; and innovations that significantly change how core WIC services are delivered (such as training in facilitated group discussion).² Preferably, the program would have operated for at least one year, have demonstrated some evidence of its effectiveness, and have potential for being replicated. In terms of potential effectiveness and replicability, we were looking for preliminary indications that suggested the programs were worth investigating, while recognizing that further investigation of the programs would be needed to assess these issues more fully. Furthermore, we were judging effectiveness in terms of clear goals, adequate resources to achieve these goals, and progress toward implementing the intended services, not in terms of the ultimate impacts of the program on the health of mothers and children.

An important caution is that this definition of “innovative” *does not* imply that these programs have been evaluated and found to be effective in improving health outcomes for targeted groups. Instead, this preliminary study sought to identify promising initiatives that may be worthy of future evaluation.

The following core research questions guided our work:

- What innovative WIC programs and services currently exist?

² We would also consider services delivered to a broader population than WIC participants (for example, a breast-feeding hotline available to all new mothers) to be “WIC Plus.”

- Under what circumstances are promising WIC programs being implemented?
- Are the programs replicable in other service areas? Is there evidence to support their effectiveness?

Table I.1 lists these overarching questions, along with specific topics covered in the interviews and site visits that are related to each question.

B. RESEARCH METHODS

Limited information is available on innovative practices that local agencies use, or, indeed, on what constitutes WIC program services “as usual.” Therefore, this study is exploratory. The programs selected are *not* intended to indicate the “best” programs nationally, as our time to find programs and our sources were limited, and the programs nominated are not necessarily

TABLE I.1
RESEARCH QUESTIONS AND TOPICS

Research Questions	Specific Topics
What innovative WIC programs and services currently exist?	<ul style="list-style-type: none"> • Program history and goals • Services provided • Target population(s) • Frequency and intensity of services • Reasons for innovation
Under what circumstances are promising WIC programs being implemented?	<ul style="list-style-type: none"> • Community contexts • Start-up efforts and development • Types of staff and necessary training • Eligibility requirements • Outreach efforts • Participation rates • Associated costs and funding sources
Are the programs replicable in other service areas? Is there evidence to support their effectiveness?	<ul style="list-style-type: none"> • Applicability in a range of settings • Critical factors for success • Implementation challenges and lessons learned • Evidence of promising outcomes • Evaluation possibilities

representative. They are interesting programs, however, and suggest practices that may be worthy of further study and may be useful for WIC policymakers and program officials to explore.

To select programs to profile, we first contacted the FNS regional offices, state and tribal WIC directors, and other experts to gather suggestions on promising programs. Based on their feedback and consultation with USDA staff, we selected about 20 programs to contact by telephone to gather detailed information on their scope, services, and probability of replication in other settings. The telephone interviews were conducted by senior project staff and generally involved interviewing the program's senior manager or managers. The interviews followed a detailed protocol and took one to two hours.

After completing these interviews and preparing detailed notes on the programs, we selected five of the programs to study in depth through site visits, which included interviews with program staff and observations of program activities. One or two MPR staff members conducted the site visits, which lasted one to two days, depending on the complexity and geographical scope of the program. Programs selected for site visits represented the major topic areas: they included two breast-feeding programs, one preventive health education initiative, one nutrition education program that focused on obesity prevention, and one service delivery initiative. In each case, the programs were sufficiently complex that a site visit could help us to understand them better. Three of the visited programs were statewide programs, for which we sought to visit several locations and interview both state and local staff.

Appendix A describes in more detail the steps we took to obtain an initial set of programs for consideration, the criteria we used in selecting programs, and the procedures we used in collecting data on the programs. Table I.2 provides an overview of the selected programs.

C. PREVIEW OF MAJOR THEMES

The next three chapters describe three groups of innovative programs: those concerned with breast-feeding promotion, with other aspects of nutrition education, and with innovative service delivery approaches. In each of these areas, we distinguish several major themes.

Innovations in breast-feeding promotion described in Chapter II fall into four major groups: (1) peer counseling programs, (2) multifaceted programs with a strong focus on outreach to health providers, (3) breast pump programs that go beyond what most WIC agencies provide, and (4) programs that target teenage WIC mothers. Peer counseling programs are widespread but vary greatly. We describe three long-standing programs (in California, Pennsylvania, and Texas) that illustrate variation in the use of paid versus volunteer counselors and in the specific roles that peer counselors fill. Some large WIC agencies offer a wide range of breast-feeding services but focus on telephone helplines and extensive outreach to community health professionals (Riverside County, California, and Miami-Dade County, Florida). Increasing access to breast pumps for high-risk groups is the focus of an Arkansas program for mothers of premature or ill babies and a Hawaii program to provide breast pumps in schools for teenage mothers. In Ohio, another program for teenagers provides special infant feeding classes for pregnant teenagers both in and outside of school.

TABLE I.2
SELECTED PROGRAMS AT A GLANCE

Topic Area and Program Name	State	Program Scope		Selected for Site Visit
		State-Level	Local-Level	
Breast-Feeding Promotion (Chapter II)				
Peer Counseling				
Breast-Feeding Peer Counselor Program	TX	✓	✓	✓
Expanded Breast-Feeding Peer Counselor Program— Berkeley Area	CA		✓	
Telephone Peer Counseling by Volunteers	PA		✓	
Multifaceted Programs				
Loving Support Breast-Feeding Helpline— Riverside County	CA		✓	✓
Lactation Consultant Services—Sacramento County	CA		✓	
Breast-Feeding Promotion and Support Program— Miami-Dade County	FL		✓	
Programs for High-Risk Groups				
Breast Pumps for Mothers of Premature or Seriously Ill Infants	AR	✓		
Pumps in the Schools (PITS)	HI	✓		
Infant Feeding Classes for Pregnant Teens	OH		✓	
Nutrition and Health Education (Chapter III)				
Obesity Prevention				
Get Fit With WIC	OK	✓		✓
Obesity Prevention Modules	PA	✓		
Mooove to Lowfat or Fat Free Milk Campaign	FL	✓		
Preventive Health Care				
WIC Nutrition Education Model for Prevention of Early Childhood Caries	AL	✓		✓
Cease Alcohol Related Exposure (CARE)— Los Angeles area	CA		✓	
Staff Training				
The Learn Together Approach	MI	✓		
WIC RD: Adjunct to Pediatric Health Care	CA	✓		
Bilingual Training Program	WI	✓		
Service Delivery (Chapter IV)				
Coordination of WIC with Maternal and Infant Support Services—northwest lower Michigan	MI		✓ ^a	✓
Steps Ahead/WIC Coordination—Cullman County	AL		✓	
WIC Services in the Workplace—Eastern Band of Cherokee Indians	NC		✓	

^a The program is in several counties, so telephone respondent was a state WIC staff member with responsibility for the area.

Other types of innovations in nutrition education, described in Chapter III, cover three major areas: obesity prevention initiatives, initiatives that coordinate with or provide preventive health services, and new or enhanced staff training. Nutrition education in WIC has traditionally focused on providing information to pregnant women and mothers as the first step to achieving behavioral change. In most cases, information was presented through brief, individualized counseling (generally 15 minutes or less) or lecture-style classes. The innovative programs presented in this chapter typically include one or more of the following:

- ***New Methods.*** Some programs focus on motivating client behavior change through facilitated group discussion and other interactive approaches. In some situations, incentives are used to reinforce program messages (see box below).
- ***Updated Content.*** Several innovative programs focus on obesity prevention; others add material on nutrition-related health behaviors, such as alcohol consumption during pregnancy and preventive dental care.
- ***Broader Target Audience.*** Interventions that target the entire family, or specifically the preschool children, are expanding nutrition education's audience.
- ***More Staff Training.*** Many states are providing more in-depth, ongoing training for staff or providing more training in special topics such as breast-feeding promotion or obesity prevention.

A Note for WIC Staff: The Use of Incentives in WIC

Incentives for Participants

Some of the programs described in this report use incentive items to reinforce healthy behaviors in WIC participants. These inexpensive items, such as water bottles or balls, are given for the accomplishment of specific tasks, or to reinforce learning in the nutrition education elements of the programs. FNS wishes readers of this report to understand WIC policy with regard to such incentives. WIC Policy Memorandum #95-5, issued 12-21-94, provides guidelines on purchasing such items with WIC funds. Program incentive items for participants and/or staff are allowable if they are considered to be reasonable and necessary costs that promote the specific program purpose.

Incentives for Staff

In some programs, clinic staff may occasionally receive *the same items* as participants, because the staff may participate in cooperative functions with the WIC target population. According to WIC Policy Memorandum #95-5, "...it may occasionally be appropriate to distribute some types of program incentive items to program staff. The items must present a WIC outreach or nutrition education message as opposed to an agency logo, and must be ones which would be expected to be widely seen by the general population or the target population."

Need More Information?

The State agency should refer to WIC Policy Memorandum #95-5, as well as to OMB Circulars A087 and A-122, and check with the Regional FNS office if it has any questions regarding the use of program incentive items. Local agencies should contact their State agencies for assistance.

The final three programs (described in Chapter IV) are innovative in where services are provided and how they are coordinated with other programs. All three are in rural areas, where lack of transportation can be a barrier. In particular, we studied two programs that integrate WIC services with Medicaid-funded care coordination for low-income pregnant women. Because the Medicaid program supports home visits, some WIC services can be provided through home visits in these areas. Another program provides WIC services at worksites, with cooperation from employers.

The concluding chapter discusses cross-cutting issues—the sources of the ideas and funding for these programs, implementation lessons learned, their potential for replication, the strength of evidence for their success, and possibilities for further evaluation.

II. BREAST-FEEDING SUPPORT PROGRAMS

WIC agencies are required by federal regulations to promote and support breast-feeding among their clients. This is accomplished through staff training, offering clients prenatal breast-feeding education (through classes and/or one-on-one contacts, and written materials and/or videos), informing clients about the food packages for breast-feeding mothers, and providing or referring to support services after the birth. Agencies receive targeted funding for these activities. They can also use either food funds or Nutrition Services and Administration (NSA) funds to purchase breast pumps to give or lend to breast-feeding mothers, and most agencies now have a breast pump program. In addition, many agencies have at least one lactation consultant (generally an International Board Certified Lactation Consultant, or IBCLC) on staff.

The breast-feeding support programs described in this chapter go beyond the required services. They have three main themes:

1. ***Peer Counseling.*** Peer counselors are generally current or former WIC clients who breast-fed their babies for a substantial period. Peer counselors may be volunteer or paid, part-time or full-time, and they may have different levels of training. Generally, the breast-feeding coordinator (who is a certified lactation consultant) trains and supervises them and provides backup support for unusual or high-risk situations.
2. ***Multifaceted Programs*** that emphasize individual assistance and outreach to health professionals. The programs profiled also provide a wide range of other services for breast-feeding mothers.
3. ***Programs for High-Risk Groups.*** Programs profiled are targeted at mothers of premature or seriously ill infants or teenage mothers.

A. PEER COUNSELING

Over the past several years, peer counseling programs have become more common in the WIC program, although they are not yet standard. Because the FY 2004 appropriation for the WIC program provides funding for peer counselors, these programs are currently of considerable policy interest. USDA considers them to be a “best practice” in the Nutrition Support Standards, but the standards do not provide any guidance on what makes a good peer counseling program. Most programs require peer counselors to be current or former WIC participants who have breast-fed at least one child, generally for six months or more. However, the programs we studied varied in their service structure along the following dimensions:

- Training and quality control: the length of training varies, as does the frequency with which the peer counselor is monitored.
- Compensation—from unpaid to well-paid.
- Hours—from very part-time to full-time (4 to 40 hours per week).
- Services provided: responsibilities of peer counselors may include prenatal counseling, teaching or assisting with prenatal classes, hospital bedside counseling, telephone counseling, in-person counseling in clinics, administering pump programs, leading or assisting with support groups, and translating (if bilingual).

Sometimes, WIC agencies incorporate peer counselors into their services in part because they cannot afford more qualified staff, such as lactation consultants. Other agencies believe strongly that peer counselors are better able than professional staff to motivate mothers to breast-feed and to continue breast-feeding, as clients may feel more comfortable with discussing breast-feeding issues with someone “just like them.”

We profile three programs that illustrate some of this variation. Texas, a pioneer in peer counseling programs, runs statewide training in how to establish peer counseling programs and train peer counselors. At the same time, Texas allows a lot of local autonomy in defining the programs. The program in Berkeley, California, and the surrounding area receives substantial outside funding and pays peer counselors competitive wages. It uses peer counselors from diverse backgrounds to serve its multi-ethnic clientele. In contrast, the peer counseling program in Washington and Greene counties in southwestern Pennsylvania operated for 10 years with volunteer peer counselors who provided counseling by telephone out of their homes.¹

¹ Two of the comprehensive breast-feeding programs described in Section B (Sacramento and Miami) also use peer counselors.

BREAST-FEEDING PEER COUNSELOR PROGRAM² TEXAS

OVERVIEW

Location: Statewide, available in 61 of 80 local WIC agencies

Start Date: April 1991

Target Population: Pregnant and breast-feeding WIC clients are the primary targets for this initiative; however, non-WIC clients are served in hospitals.

Purpose: To improve infant health by increasing breast-feeding rates through breast-feeding promotion, education, support, and assistance.

Services: Peer counselor services vary at the local level, and can include one-on-one assistance in WIC clinics, hospitals, the home, or over the phone; breast-feeding and prenatal classes; breast pump programs; and referrals to other social services.

Funding: The Texas peer counselor program received \$1.3 million in U.S. Department of Agriculture (USDA) operational adjustment funds for fiscal year 2003.³ Many local agencies also use a portion of their regular WIC funding to support their peer counselor programs.

Why Program Was Chosen: This program was one of the first Breastfeeding Peer Counselor (BFPC) Programs in the country, and it has been used as a model by other states. Moreover, through the Peer Dads Program, it has attempted to slowly expand into nontraditional venues. It can serve as a model for other agencies to enhance breast-feeding promotion efforts by implementing Texas' intensive breast-feeding trainings for program staff, WIC staff, and health professionals.

Key Challenges: Staff turnover has been a challenge at some WIC clinics. Counselors may leave, for example, because they can no longer bring their infants to work after their first birthday or because they need to find a full-time job. In addition, it is challenging for a statewide program to maintain quality control and ensure that peer counselors give consistent, good-quality services and accurate information to clients.

² Telephone interview: April 1 and 7, 2003; site visit: September 16-17, 2003.

³ Operational adjustment grants are awarded by Food and Nutrition Service (FNS) regional offices, often through a competitive process. FNS regional offices retain 10 percent of Nutrition Services and Administration (NSA) funds allocated to state agencies for these grants.

BACKGROUND

State Characteristics. Texas, with over 21 million residents in 2001, is one of the largest states in the nation by land area and population. In 2002, 52 percent of the state was white and 12 percent was African American, lower than the national average. About 32 percent of the state's population is of Hispanic or Latino origin, compared to 13 percent for the U.S. as a whole. More than 31 percent of the population speaks a language other than English in the home. In 1999, over 15 percent of residents lived below the poverty line.⁴

WIC Program Background. The Texas WIC program is the second-largest program in the country, serving 800,000 to 850,000 clients a month in fiscal year 2003. In September 2003, 51 percent of clients were children, 25 percent infants, 11 percent pregnant women, 7 percent postpartum women, and 6 percent breast-feeding mothers. WIC clients in Texas all have access to basic WIC services, but supplemental services depend on the specific agency, with some offering free immunizations and the USDA's Farmer's Market Nutrition Program (FMNP).

According to program staff, there are multiple barriers to breast-feeding among the Texas WIC population. Some mothers believe common breast-feeding myths, including constant pain, the inability to go back to work or school, and lack of father-infant bonding. Breast-feeding while returning to work can be very difficult for WIC clients, as certain work environments are less flexible than others. For example, service jobs often do not have private space for breast-feeding mothers. Additional barriers include a lack of confidence and support, a family history of formula feeding, and receipt of inaccurate information from health professionals who may not have the expertise to support breast-feeding or who view formula feeding as a safety net.

Program History and Objectives. In 1989, when state WIC agencies were mandated to name a state Breastfeeding Coordinator, the Texas Breastfeeding Coordinator conducted a needs assessment of local WIC agencies to identify successful practices in promoting breast-feeding, concentrating particularly on those sites with the highest breast-feeding rates. Staff from two of the most successful agencies reported doing something that resembled peer counseling. For example, one agency paid a \$10 stipend to program participants to speak about their breast-feeding experiences with other clients.

Based on these findings, the BFPC Program was developed from the state level with input from the local La Leche League International chapter and has been operating since April 1991. The state Breastfeeding Coordinator (who later became the state Peer Counselor Coordinator) collaborated with a team leader from La Leche League to write the first proposal and develop training materials. Initially, the program was piloted in Travis County, Houston, and Harris County. Having successfully implemented and refined these pilot programs, program officials gained support from WIC stakeholders and were able to promote the initiative across the state.

⁴ Unless noted otherwise, state and county characteristics throughout this report are from *quickfacts.census.gov*.

The BFPC Program mission is to improve infant health by increasing breast-feeding rates. Goals include (1) increasing the number of WIC mothers who breast-feed, (2) providing follow-up support to mothers who start to breast-feed, and (3) creating long-term networks of breast-feeding support in low-income neighborhoods. The core philosophy of peer counseling is that WIC mothers with breast-feeding experience have a perspective to offer expectant and new mothers that health professionals do not. Building on their own experience, peer counselors incorporate current research and knowledge from breast-feeding experts into information they share with their clients. Another important element is having a network of specialists, such as WIC nutritionists and nurses, local breast-feeding coordinators, lactation consultants, and clients' physicians, to whom the peer counselor can refer the mother.

Target Population. WIC clients who are pregnant or breast-feeding are eligible to participate in the program. In addition, non-WIC women often receive BFPC services in local hospitals. In a few pilot sites, fathers of WIC infants can be counseled by "peer dads" (see box).

PROFILE OF INNOVATIVE PROGRAM

Services Provided. Since WIC agencies have autonomy and flexibility in program implementation at the local level, services vary from agency to agency. At many agencies, peer counselors serve as role models by breast-feeding their infants (either during a private counseling session or in the waiting room) and discussing their experiences, often with women who have never seen a baby being breast-fed or talked to a mother who has breast-fed. One peer counselor remarked that peer counselors are "regular people, regular moms," which is different from having WIC staff convey the benefits of breast-feeding to clients.

In general, peer counselors teach or co-teach breast-feeding and pump classes, and facilitate or co-facilitate breast-feeding discussion and support groups.⁵ In some agencies, they teach prenatal and general nutrition education classes.⁶ Classes, which often rotate between English and Spanish, last for 30 minutes. Peer counselors might teach small or large classes, depending on the agency. For example, at one of the Houston clinics, classes are held in an auditorium that was formerly a movie theater. There, it is not unusual for a peer counselor to teach a class of 100 women. As of August 1, 2003, the state permits breast-feeding discussion groups in lieu of breast-feeding classes. Local staff must develop an objective, provide an evaluation component, and select a major topic for discussion. Some agencies open the event to non-WIC mothers.

⁵ The program has had limited success with support groups unless they are held as nutrition education encounters at the time of voucher issuance.

⁶ Peer counselors must complete a set of modules in order to teach nutrition education classes other than breast-feeding.

PEER DADS PROGRAM

The peer-counseling program for fathers (hereafter referred to as “peer dads”) started in fiscal year 2002 in four pilot sites (Austin, Brownsville, El Paso, Houston). State WIC officials were aware that WIC needed to better incorporate fathers into program services. Research also indicates that the father influences a mother’s decision to breast-feed (Peregrin 2002, Arora et al. 2000). Therefore, the Peer Dads Program was designed to arm fathers with information, education, and support, so that they have the skills and knowledge to help their partner breast-feed successfully.

To become a peer dad, a father must have a breast-fed baby who is currently enrolled or was previously enrolled in WIC. Local Breastfeeding Coordinators and their staff train the peer dads in an eight-hour workshop using the state agency developed WIC Father-to-Father Breastfeeding Support Training Manual, *Training Dads to Help Dads*, and *Becoming a Father: How to Nurture & Enjoy Your Family* (Sears, Gotsch, and Froelich 2003).

Peer dads’ schedules vary from 4 to 20 hours per week. Services can be conducted in the WIC clinics or over the telephone. Peer dads attend breast-feeding classes to inform prenatal and postpartum women about the program and to encourage their partners to seek counsel. They also approach fathers in the waiting room to see if they would be interested in talking about breast-feeding, and on occasion have attended health fairs. Common topics for discussion with fathers include the benefits of colostrum, the advantages of breast milk over formula, and ways fathers can be supportive of their baby’s mother during the breast-feeding experience. Sessions last about 20 minutes. If the peer dad is faced with a question that he cannot address, he refers the father to a peer counselor, nutritionist, lactation consultant, or WIC supervisor. The most frequent referral is to the peer counselor.

One pilot site has been very successful since beginning the initiative, with more WIC fathers coming to the clinic and receiving the services of the peer dads each month. Specifically, peer dad contacts increased from 2 in May 2002 to 89 by October 2002. In exit interviews, fathers have rated the services of the peer dad as “very important” and said the information they received from peer dads would help them support their babies’ mothers with breast-feeding and help them to be better fathers. Other peer dad pilot sites have so far met with limited success because of the low volume of males in the clinic and problems in recruiting and retaining peer dads. For example, the state Peer Counselor Coordinator noted difficulty in getting peer dads to plan time to come into clinics around their regular work schedule. Despite implementation challenges, local WIC agencies that sponsor peer dads are excited about the pilot. They like the concept of fathers helping fathers and are working hard to make the program work.

In addition, peer counselors provide one-on-one counseling and assistance to pregnant women and new mothers in hospitals, in WIC clinics, and over the telephone.⁷ In some hospitals, there are staff contacts that identify potential clients for peer counselors to visit. Some hospitals provide peer counselors with a printout of breast-feeding clients, so that they know which rooms to visit. Typically, the local WIC clinic generates a monthly maternity list of expectant mothers. Peer counselors try to call the mother within three weeks of delivery to answer any questions about breast-feeding, offer encouragement, and remind the mother to call the clinic or peer counselor upon delivery with breast-feeding questions or concerns. If they cannot reach the mother by telephone, they send a letter to the home. Peer counselors will follow up with breast-feeding WIC mothers for as long as there is a need for individual assistance.

Some peer counselors issue breast pumps, answer local breast-feeding hotlines, answer a statewide toll-free hotline at Mom's Place in Austin (see box), make home visits, distribute pamphlets in WIC waiting rooms and hospitals, prepare bulletin boards, participate in health fairs, train WIC staff, make presentations to health care professionals, and perform other WIC duties. Some local agencies provide WIC certification services on site in the hospitals. There are often "reverse referrals" when a peer counselor connects with a mother in the hospital who is eligible for WIC but is not enrolled. At most hospitals, peer counselors simply call the local agency and make a certification appointment for the mother while she is in the hospital. Peer counselors also refer clients to local lactation consultants, Mom's Place, or other social services.

Clients often see a peer counselor for at least two breast-feeding contacts, including one breast-feeding class and one individual counseling session, which frequently takes place on the day the client is being certified. However, the number and length of contacts with a specific client vary. For example, one local agency requires its peer counselors who counsel mothers in hospitals to follow up with five telephone calls. Most issues that surface during one-on-one counseling, whether in person or over the phone, are common, such as latch-on challenges, sore nipples, and engorged breasts. Often non-breast-feeding issues arise, such as frustrations with a partner or the challenges of being a new mother. Complex breast-feeding issues are rarer, but if one does come up, peer counselors can refer WIC clients to a lactation consultant, a site supervisor, the Breastfeeding Coordinator, a nurse, a nutritionist, the mother's physician, or another designated health professional. Many local agencies have Internationally Board Certified Lactation Consultants (IBCLCs). In Austin and Central Texas, peer counselors often refer mothers who need extra attention to Mom's Place. Most hospitals have lactation consultants that see high-risk mothers or mothers with problems beyond the peer counselors' scope of practice or knowledge. Peer counselors are trained to make immediate referrals for

⁷ In WIC clinics, staff members refer clients to a peer counselor for breast-feeding assistance. Some WIC agencies have more funding than ever before, but not enough to meet peer counselor demand. As a solution, agencies have scheduled certification appointments and prenatal and breast-feeding classes when peer counselors are scheduled at the clinic, so that they can target WIC clients who would most likely benefit from peer counselor services. Some peer counselors have their own office space, while others do not. In many clinics, the breast-feeding room and the peer counselor's office are the same.

MOM'S PLACE

Mom's Place is the Texas WIC Breastfeeding Resource Center. Located in the capital, Austin, this centralized resource center and WIC lactation clinic provides assistance through a statewide toll-free breast-feeding hotline (operating during regular business hours), individual assistance by appointment for complicated breast-feeding cases, and breast pumps. The director, who is an IBCLC and a nurse, as well as at least two peer counselors from the BFPC Program, staff the center. Mom's Place deals with complex issues relating to premature infants, infants in the neonatal intensive care unit, congenital abnormalities (such as cleft lip, cleft palate), digestive disorders, neurological disorders, mastitis, poor range of tongue motion, physical injury to mother, sore nipples, and failure to thrive. The peer counselors primarily answer routine breast-feeding questions on the hotline, issue breast pumps, and handle clerical tasks, whereas the director provides one-on-one assistance for mothers with more complex issues.

Generally, the three main sources of referrals are hospital lactation consultants, peer counselors, and other WIC staff. A WIC clinic is attached to Mom's Place, and sometimes staff bring walk-ins over to the center. In turn, Mom's Place staff often provide reverse referrals to clients who are probably eligible for but not enrolled in WIC. It is also common for former clients to refer friends and relatives to Mom's Place.

Aside from functioning as a central breast-feeding resource center, Mom's Place serves as a training facility for the Texas Department of Health's dietetic internship program. Pediatric residents also come to Mom's Place for one of their public health rotations, along with nursing students from the University of Texas, Austin Community College, and Baylor College of Medicine. Written into the Mom's Place grant is a continuing education stipend program requiring that 40 WIC staff receive three days of training at Mom's Place each year. In addition, the director conducts several in-services and trainings for the Texas Department of Health, local health departments, and community organizations.

The Mom's Place grant totaled \$189,000 in fiscal year 2003. This comprised the entire operating budget for the clinic, which employs a staff of four who worked a total of three FTEs. During fiscal year 2003, there were 2,104 telephone consultations through the hotline, 2,167 local calls, and 8 electronic mail messages. Of these 4,279 contacts, 2,402 were from WIC clients and 709 were from professionals requesting breast-feeding information. In addition, 39 medical and health students received brief training at Mom's Place. Forty-four WIC staff received training as well. As for clinic consultations, there were 1,124 appointments for 819 clients (801 were WIC clients). Of the mothers seen, 80 percent were still breast-feeding one month after the first clinic visit to Mom's Place.

problems outside the normal breast-feeding experience (for example, severe pain or failure to thrive), breast-feeding problems that are not resolved within 24 hours of the peer counselors' intervention, or problems in an area other than breast-feeding.

Participation. The BFPC Program is available statewide, but it is not mandatory that local agencies participate. There are 80 local agencies, with 61 offering the program. The majority of local WIC agencies without peer counselors are small. Peer counselors also work in 30 participating hospitals. At most hospitals, peer counselors do not try to differentiate between WIC and non-WIC mothers, because it would be too cumbersome and time-consuming to select specific mothers for peer counselors to visit.

Coordination and Collaboration. The La Leche League plays an important role in promoting the program, giving referrals to WIC clients, receiving referrals for non-WIC clients, and helping with staff training. Moreover, the organization assisted with initial program development. The state professional liaison of the local chapter formally gave her support for the initiative. To the state Peer Counselor Coordinator, this "stamp of approval" from a reputable breast-feeding advocacy group was beneficial in garnering support.

Publicity and Outreach Efforts. Program participants often have their first contact with the BFPC Program through a local WIC agency that offers these services. Ideally, a peer counselor connects with a client when she is pregnant and being certified for WIC services. While a client is waiting for vouchers, peer counselors often introduce themselves or have the WIC staff introduce them. In this way, they have time to work with the mother, addressing concerns and educating her about the benefits of breast-feeding well before delivery. Some clinics require that pregnant women meet with a peer counselor.

Local agencies have implemented a range of publicity strategies to promote the program, such as putting up displays in waiting rooms. Some peer counselors have spoken about breast-feeding on radio and television shows. In addition, to raise awareness about the program, they give presentations to health professionals and visit social service agencies and health fairs.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The state Peer Counselor Coordinator is the main contact for the BFPC Program, fielding questions that cannot be handled at the local level and facilitating the Peer Counselor Trainer Workshop. Local Breastfeeding Coordinators recruit, train, and supervise the peer counselors. Many of these coordinators have degrees in nutrition and are IBCLCs. About 300 peer counselors are employed in 123 full-time equivalent positions and work about 20,000 hours a month.

Local agencies have their own recruiting and hiring practices for peer counselors. Nevertheless, state BFPC policy requires that peer counselors be current or previous WIC participants, be successful in having breast-fed at least one infant, be enthusiastic about breast-feeding, and have access to a telephone and transportation. Some local agencies set other criteria, based on their own needs and hiring practices. For example, some agencies require that staff be bilingual in Spanish. However, this can become a problem when needy clients miss out

on services while the local agency waits for an appropriate bilingual applicant. Some agencies try to hire peer counselors whose ethnic and cultural background is similar to that of clients.

Peer counselors are often recruited through WIC staff, other peer counselors, or posters in the clinics. After completing an application and an interview, they are hired as regular employees, temporary employees, or contractors, depending on local policies. The state Peer Counselor Coordinator originally envisioned peer counselors working four hours a week so that they did not earn a salary that would make them ineligible for certain social service benefits. However, over the years, their hours of work have expanded. Some WIC agencies have full-time and/or part-time peer counselors working anywhere from 4 to 40 hours a week. Some part-time peer counselors have another part-time position, such as intake clerk, within the local health department or WIC agency.

As previously mentioned, agencies develop local policies on how their programs are structured. For example, at one agency, peer counselors may be allowed to work in hospitals, usually for longer hours, after gaining experience in the clinic for one year. At another agency, peer counselors might be required to attend additional state-sponsored training before working in the hospital. Other agencies might allow peer counselors to work in the hospitals immediately after the initial training program.

DESIGNING A PEER COUNSELOR PROGRAM

The *Training Moms to Help Moms* manual provides answers to the following questions for WIC staff that want to begin a BFPC Program:

- How do you choose peer counselors?
- What are the responsibilities of the peer counselor?
- How many peer counselors do you need?
- How many peer counselors should you recruit and train?
- Why is peer counselor training required?
- Where will you hold the training?
- How will you schedule the training?
- How will you conduct the training?
- Do you need a graduation?
- What is the role of the lactation consultant?
- What are the costs?
- How are peer counselor costs funded?

Training and Quality Assurance. Training for the BFPC program occurs at two levels: training professionals to train the peer counselors, and training the peer counselors locally. The state Peer Counselor Coordinator collaborated with a La Leche League team leader—a nurse and IBCLC—to develop training manuals. They wrote the *WIC BFPC Training Manual—Moms Helping Moms* to train the peer counselors, along with *Training Moms to Help Moms* for the Peer Counselor Trainer Workshop.

The state Peer Counselor Coordinator and other staff usually facilitate the train-the-trainer workshop, which is held three times a year in Austin. Participants include local Breastfeeding Coordinators, lactation consultants and educators, nurses, WIC staff, La Leche League team leaders, teen-parent educators, health educators, and experienced peer counselors. The workshop gives an overview of the approaches to peer counseling, how to design a peer counselor program and advocate for one in their agency, and how to conduct effective peer counselor training (see box). The training also presents detailed lesson plans, including topics to be covered, handouts, videos and books needed, and questions to address with the class. Panels of local Breastfeeding Coordinators and peer counselors provide additional insight and guidance.

Local peer counselor training is designed to be five classes of four hours each. This schedule can be modified to meet trainer or participant needs, but the initial training should total 20 hours. Like other elements of the BFPC Program, the frequency of trainings varies from agency to agency. Travis County’s Breastfeeding Coordinator holds a training whenever there are 6 to 10 interested people, usually two or three times a year. Some agencies have little peer counselor turnover, so training sessions may occur less frequently. Program officials recommend holding training outside the clinic or after clinic hours to avoid interruptions, and to ask community advocates, peer counselors, or WIC staff to co-facilitate. Most agencies allow participants to bring their breast-feeding infants.

The content of the actual peer counselor training focuses on enabling peer counselors to help with routine breast-feeding issues (such as latch-on problems) and answer “real-life” questions. Specific topics include the advantages of breast-feeding, the amazing breast (anatomy, physiology), comparing breast milk with substitutes, the immunological qualities of breast milk, prenatal care, basic how-to’s of breast-feeding (such as latch-on and positioning), common concerns, starting solids, weaning, parenting skills, barriers to breast-feeding, cultural considerations, counseling techniques, including the father and family in the breast-feeding process, special circumstances, referrals, mother/infant separation, breast pumps, and peer counselors at work. Participants receive copies of *The La Leche League International Breastfeeding Answer Book* to use as a reference tool while working with clients (Mohrbacher and Stock 2003). The Texas BFPC Program has trained about 2,500 breast-feeding mothers as PCs since its inception in 1991.

The extent to which additional, on-the-job training is implemented varies from site to site as local agencies develop their own orientation and mentoring/training plans. For new staff, some agencies use a formal “Peer Counselor Skills Check-Off” list of the various observations and activities staff must perform before they are permitted to work on their own in counseling mothers or teaching classes. Other agencies have informal procedures but require similar activities. In Travis County, new peer counselors must observe the counseling, teaching, and documentation of other peer counselors. The new counselors, while being observed by WIC

staff or the Breastfeeding Coordinator, must also (1) counsel a prenatal mother, (2) co-teach or teach a breast-feeding class, (3) counsel a mother in person or over the phone, and (4) create or help design a bulletin board promoting breast-feeding or the peer-counseling services. Finally, the peer counselor in training must locate various resources in the clinics (such as pamphlets, breast pumps), weigh an infant, conduct an inventory of the breast pumps, visit Mom's Place, and meet with the local Breastfeeding Coordinator and WIC supervisors before qualifying to work independently.

Peer Counselors have the opportunity to attend other training sponsored by the agency, state, or community organization. For example, the program includes a monthly in-service session that lasts about an hour. Usually, local staff review and discuss actual case studies and/or peer counselors receive an update or training session on a breast-feeding topic from the agency's Breastfeeding Coordinator, the lactation consultant, or an invited speaker.

Many peer counselors also undergo the same state agency-sponsored training that breast-feeding staff and health care professionals receive. The Texas Department of Health Breastfeeding Promotion Section and the Texas Association of WIC Directors have coordinated a statewide effort to train professionals on breast-feeding information so that WIC clients are receiving consistent messages. Training courses include "Principles of Lactation Management" and "Counseling and Problem Solving." These two training sessions last for 15 hours over two full-day sessions. Other classes available by request for health care providers include "Mini Breastfeeding Management Program I and II" and the "Physicians' Breastfeeding Course."

For quality assurance, local Breastfeeding Coordinators frequently observe peer counselors, especially new hires, and provide feedback. They also rely on the site supervisor to monitor peer counselors. Annual audits require observations of WIC staff doing counseling, including peer counselors.

Record Keeping and Data Systems. In the WIC clinics, peer counselors fill out standardized tracking forms for individual counseling. These forms are flagged for any necessary followup and inserted into the client's chart. The Breastfeeding Counseling Form includes basic contact information, the reason for the call or visit, a series of questions about the infant and mother (frequency of feedings, number of wet diapers, positioning, milk supply, health problems), the peer counselor's response, pamphlets given, and any referrals made. The Prenatal Breastfeeding Counseling Form includes basic contact information, questions to prompt a discussion about breast-feeding (for example, Does the mother know anyone who is breast-feeding? Does she have a support system in place?), a checklist of topics discussed (for example, latch-on, positioning, engorgement), the peer counselor's response, and pamphlets given. Furthermore, at some agencies, peer counselors maintain class attendance and telephone logs. While counselors do not insert written documentation into the patient's charts in hospitals, they report verbally to the nurse in charge, who will document their comments.

Funding. In fiscal year 2003, the Texas BFPC Program received \$1.3 million in operational adjustment funds through USDA for a budget that includes the cost of the peer counselor salaries, staff training, and training materials. Many local agencies also use a portion of their regular WIC funding to support their peer counselor programs. Other sources of funding cover food and child care provided at the local and statewide training. In addition, one of the initial

pilots was funded through the Office of Childhood Services of the U.S. Department of Health and Human Services.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. Some research indicates that women are more likely to breast-feed after hospital discharge with the support of peer counselors, whether through phone calls or through individual counseling (Gross et al. 1999; and Shaw and Kaczorowski 1999). The peer counselor provides woman-to-woman support and is often seen as a friend, a personal cheerleader, or a sister. In Texas, breast-feeding rates have increased at all WIC agencies that have implemented peer counselor programs. Specifically, 98,338 infants born to WIC mothers were breast-fed in July 2001. By July 2002, the number was 106,250, and by July 2003, it was 112,691. The proportion of breast-feeding mothers to total infants was 7.5 percent in 1990, and over 20 percent in 2003. Texas uses a multifaceted approach to breast-feeding promotion, including peer counselor services, WIC staff training, and health professional training. Therefore, it is hard to say to what degree each component contributed to the increase, since the components were implemented simultaneously.

Success is also evident at the local level. For example, Travis County was a pilot site for the peer counselor program. The breast-feeding rate was 16.7 percent in April 1991, but by June 1992, a little over a year into the pilot, the rate was 21.2 percent. These percentages reflect the ratio of breastfeeding mothers to the total number of infants participating in the program. In fiscal year 2003 this ratio was 41 percent at the Travis County WIC Program.⁸

A secondary outcome is that peer counselors have gained the skills and self-esteem to pursue other employment. For many peer counselors, the program is their initial entrance into the workforce. Since 1991, local agencies have hired more than 200 peer counselors into other staff positions. Some have gone on to pursue higher education; several have passed the IBCLC exam and now work as lactation consultants. Many local agencies have instituted career ladders, so that an experienced peer counselor can become a senior peer counselor, then a Peer Counselor Coordinator, and eventually an assistant Breastfeeding Coordinator. Several smaller agencies have moved experienced peer counselors into Breastfeeding Coordinator positions.

Many hospital staff members see the value and success of having someone address breast-feeding needs upon delivery. Hospitals have even started to hire their own lactation consultants. Several hospitals have hired WIC peer counselors into Breastfeeding Counselor positions paid for by the hospital. While this structural change reduces the number of peer counselors needed at the hospital, another benefit is that hospitals are becoming “breast-feeding friendly.”

⁸ Over the years, Texas began to take a closer look at breastfeeding initiation rates among infants of mothers who were on the WIC Program during pregnancy and therefore available to receive breastfeeding information and encouragement from WIC. In September 1999 the breastfeeding initiation rate among infants born to a mother who had been served by WIC during pregnancy at the Austin/Travis WIC Program was 70.4 percent. By December 2003 the initiation rate at Austin/Travis had increased to 83 percent.

Key Challenges. Peer counselor turnover has affected the BFPC Program. Most agencies allow peer counselors to bring their breast-feeding infants to work up to 1 year of age. A prime time for peer counselors to resign is after this first year. Also, many peer counselors are from socioeconomic circumstances that may produce a higher-than-average incidence of family and financial issues that disrupt their ability to continue their job. With this in mind, local Breastfeeding Coordinators recommend recruiting more peer counselors than a local agency thinks it will need. Furthermore, there are pros and cons in allowing peer counselors to bring their breast-feeding infants to work. The main advantage is that peer counselors can model breast-feeding for clients. At the same time, even though the WIC clinics are full of infants and children under the age of 5 every day, some agencies may consider it a liability that an infant brought to work by his mother might become injured or ill.

All peer counselors have a unique style in how they interact with clients, which can be perceived as both a challenge and a benefit. Despite their preferences, personalities, and varying education backgrounds, they must provide consistent information, as well as document and communicate appropriately.⁹ With a statewide program, achieving this level of quality control can be difficult. In particular, some bilingual peer counselors struggle with documentation because they have trouble expressing themselves in writing in either English or Spanish.

Peer counselors' schedules vary from 4 to 40 hours per week. When peer counselors are hired for part-time jobs, applicants must understand how their income could affect their eligibility for services and benefits. If their income is too high, they may lose benefits such as WIC and Medicaid. Some women must choose between having a reduced workload and losing benefits in order to pursue a valuable position within the WIC program.

Lessons Learned. To maximize the effectiveness of the BFPC Program for pregnant and postpartum women who choose to breast-feed, WIC staff must have a clear understanding, preferably gained in a meeting or training before the initiative begins, of the roles and responsibilities of peer counselors. This is especially important so that peer counselors are not pulled away from their service delivery duties to assist with regular WIC administrative tasks. One common misconception among WIC staff is that a peer counselor in the waiting room is "hanging out" and not working. However, she is actually modeling and discussing breast-feeding and gaining the trust of clients. Moreover, site coordinators should make it clear that peer counselors are in the clinics to provide breast-feeding support to WIC clients, not to take over WIC staff positions. Peer counselors actually decrease the workload and improve service delivery, since breast-feeding support can be time-intensive. WIC staff do not usually have time to provide routine breast-feeding support in the context of a busy clinic schedule.

Experience has demonstrated that the program works best when WIC staff (1) include peer counselors in staff meetings, (2) treat them like one of the team and recognize that the position is a "real job," (3) respect the work they are doing and acknowledge that it is different from what

⁹ Peer counselors have a wide range of educational credentials, ranging from high school to college degrees.

other staff do, and (4) mentor peer counselors. In addition, WIC staff are more likely to support the program when they assist in peer counselor recruitment and training and attend state agency-sponsored breast-feeding trainings. WIC staff also have greater confidence in the program when program officials regularly observe and monitor the activities of peer counselors to make sure they are providing textbook information rather than relying on personal experience alone.

Overall, the BFPC Program has rejuvenated the enthusiasm of WIC staff for promoting breast-feeding, and clinic staff appreciate the services that peer counselors provide. The state Peer Counselor Coordinator thinks that the program can be replicated, especially since the training manual walks interested stakeholders through program implementation step by step. In fact, the front section of the manual explains in detail how to design a peer-counseling program.

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EXPANDED BREAST-FEEDING PEER COUNSELOR PROGRAM¹⁰
ALAMEDA/CONTRA COSTA COUNTIES, CALIFORNIA

OVERVIEW

Location: Northern Alameda County and parts of Contra Costa County (Berkeley and environs), California

Start Date: 2001

Target Population: WIC clients and other low-income women

Purpose: To increase breast-feeding initiation and duration rates by providing support and assistance to pregnant and postpartum women.

Services: Peer counselors (PCs) provide one-on-one assistance in hospitals, homes, and WIC clinics, as well as over the phone, to pregnant and breast-feeding women.

Funding: \$500,000 grant from the California Endowment, plus an additional 50 cents for every \$1 spent on the grant from the California Nutrition Network.¹¹ The WIC program provides some funding as well.

Why Program Was Chosen: This program provides services in the hospital immediately after delivery and over the telephone for one year, or until breast-feeding ceases. The program has also tried to meet the language and cultural needs of its diverse clientele, many of whom do not speak English, by hiring bilingual and multicultural staff members.

Key Challenges: It is a challenge for one lactation consultant to provide adequate supervision for the PCs. In addition, the program initially did not have office space, so many counselors worked from home, adding to the challenge of providing adequate supervision. Turnover has also been a concern.

¹⁰ Telephone interview, April 25, 2003.

¹¹ Founded in 1996, the California Endowment is a private health foundation that resulted from the creation by Blue Cross of California of the for-profit WellPoint Health Networks Corporation. With \$3 billion in assets, the organization provides grants to local community organizations in the state.

BACKGROUND

County Characteristics. Alameda County has a population of 1.5 million, based on an estimate for 2001. In 2000, 41 percent of the population was white, 20 percent Asian, 20 percent Hispanic, and 15 percent African American; the last three figures are higher than the state average. Over one-third of the population speaks a language other than English in the home. Out of 58 counties in the state, Alameda ranks 46th in poverty and 45th in childhood poverty, with 11 percent of the population below the poverty level in 2000, compared to the state average of 14 percent (rankings from California Food Policy Advocates 2003).

Contra Costa County has a population of almost 1 million. In 2000, 58 percent of residents were white, 18 percent Hispanic, 11 percent Asian, and 9 percent African American. About 26 percent of the population speaks a language other than English in the home. About 8 percent of the county lives below poverty, lower than the state average.

Program History and Objectives. In 1989, the City of Berkeley WIC Director started a peer-counseling program (the precursor to the current program), after learning about the concept during a breast-feeding session at a National Association of WIC Directors conference. WIC mothers were identified as potential PCs if they had exclusively breast-fed an infant for at least seven months and had an interest in becoming a PC.¹² At that point, it seemed there would not be enough funding to pay the PCs, but women were interested anyway. At the start, 35 women voiced interest in the program, 15 attended the training, 10 completed the training, and 6 were hired on a temporary basis at an hourly wage. A small amount of funding came from the WIC budget and Chez Panisse, a Berkeley restaurant that gives the WIC program money for emergency food for clients. The restaurant agreed that some of these emergency food funds could be used to pay PCs. This program, targeting Berkeley WIC clients, operated for several years. However, WIC funding was reduced as WIC participation declined, and the program did not have enough funds to sustain itself.

Around the time the breast-feeding program was in danger of being eliminated due to reduced WIC funding, the WIC Director learned about grant funding through the California Endowment. In order to receive funding, however, she had to expand the peer-counseling program beyond the Berkeley WIC clientele into the community, including the hospitals. It took about a year to apply for and receive funding. In 2001, the City of Berkeley received \$500,000 to operate the expanded project until September 30, 2003.¹³

¹² Exclusive breast-feeding is used here to mean giving no formula, but would include feeding solids as appropriate.

¹³ This profile discusses activities prior to September 30, 2003, when the California Endowment grant formally ended. As of October 1, 2003, the program is continuing on a smaller scale. There is some unspent money from the California Endowment, which is funding the lactation consultant and two of the PCs. This money continues to be matched by the California Nutrition Network. Program officials anticipate that this money will last until funding from the \$15 million earmarked by the U.S. Department of Agriculture (USDA) for breast-feeding PC programs becomes available. In addition, three WIC Programs are paying for some of the PCs' time.

Target Population. As part of the grant, City of Berkeley PCs serve all WIC clients and low-income residents of northern Alameda County and some parts of Contra Costa County. PCs also provide services at Alta Bates Hospital, which is in Alameda County but serves non-county residents also.

WIC Program Background. Alameda County has seven WIC clinics, with a total monthly caseload of 33,650 participants. The county has one mobile outreach unit that provides WIC services at social service agencies, hospitals, and at private obstetricians' and pediatricians' offices throughout the county. The WIC program sponsors a Farmer's Market Nutrition Program (FMNP) for pregnant women. The program has also worked to increase the ethnic, gender, and language diversity of the staff. In addition, they have increased participation by providing Saturday services at the Hayward WIC site in the southern portion of the county.

In Alameda County's Berkeley program, 9 percent of participants are pregnant, 13 percent breast-feeding, 4 percent non-breast-feeding postpartum, 23 percent infants, and 50 percent children. The Berkeley program offers two breast-feeding classes to prenatal clients in English or Spanish. The first class covers the advantages of breast-feeding; the second discusses breast-feeding techniques. There is also a postpartum breast-feeding class. Clients have access to an electric pump loan program, a breast-feeding "warmline," and an incentive program for long-term breast-feeding.

The Contra Costa County WIC program has four clinics that provide basic WIC services in English, Spanish, Vietnamese, Laotian, Tagalog, and Igbo. The program serves 16,500 participants. Of these, 11 percent are prenatal, 12 percent breast-feeding, 6 percent non-breast-feeding postpartum, 25 percent infants, and 46 percent children. The program provides two prenatal breast-feeding classes and a Spanish-speaking support group. To promote long-term breast-feeding, there is an incentive program that recognizes mothers who breast-feed exclusively for 6 and 12 months. In addition, the program has an electric pump loan program and a toll-free warmline. The WIC program collaborates with the Child Abuse Prevention Council to provide discharge bags with gifts and information for breast-feeding moms in the hospital. Staff provide referrals to the PC program and in-person lactation assistance.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. PCs contact and counsel clients primarily in the hospital and over the telephone. They call from home or from the breast-feeding office when making telephone contacts. The PCs typically provide one-on-one counseling, referrals, some written material, and electric or manual pumps if needed. They address current breast-feeding status, combination feedings, common problems (such as engorgement, sore nipples), and length and frequency of feedings. They also discuss the mother's diet and the use of vitamin supplements. PCs use a protocol to refer complicated cases to a lactation consultant or other medical authority. The PCs distribute their home phone numbers and will identify the best time to call a client. Home visits and appointments at the WIC clinic are less common and are made when clients are having breast-feeding difficulties, in which case lactation consultants are responsible for the

consultation. However, the PCs are encouraged to be present at the consultations to increase their counseling skills.

All City of Berkeley prenatal WIC clients are enrolled in the program. Ideally, PCs contact Berkeley prenatal WIC clients during the seventh month of pregnancy. Other WIC clients and non-WIC clients are enrolled in the hospital, where PCs make rounds six days a week to identify and assist WIC clients or other low-income women. The latter can often be identified because they participate in MediCal. The hospital lactation consultant assists the PCs in targeting the appropriate women. Specifically, the PCs identify WIC and low-income clients from a list they receive of hospital patients.

In the hospitals, the PCs go from room to room explaining the program and checking whether the woman is eligible based on income and residence. If she is eligible and would like to participate, then she is enrolled in the program and given bedside assistance. The enrollment forms are returned to the WIC lactation office, and the WIC lactation consultant considers age, location, language, and ethnicity to match the client with a PC to provide followup. The hospital lactation consultant supervises the counselors while they are in the hospital. The PCs will refer clients who need additional assistance to the hospital lactation consultant. The two positions work together, and the PCs are considered part of the health care team.

After delivery, all clients are followed for one year or until they stop breast-feeding. The goal is to have contacts with breast-feeding clients at 2–3 days, 5–7 days, 10–14 days, 1 month, 3 months, 6 months, 9 months, and 1 year after delivery. These contacts are primarily over the telephone.

The grant requires that program staff include bilingual and multicultural PCs to meet the needs of clients from different cultures and of those who do not speak English. The program has PCs who speak Arabic, Spanish, and various dialects of Chinese, Vietnamese, and Korean. In the hospital, PCs try to identify monolingual women in need of assistance in their own language, regardless of their income.

Participation. The grant from the California Endowment specifies that 2,250 women a year should be served; however, the program has been averaging about 1,600 a year.

Coordination and Collaboration. The Alta Bates Hospital agreed to have PCs provide breast-feeding support and information to their patients.

Publicity and Outreach Efforts. A hospital lactation consultant and the PCs publicize the program by word of mouth and through handouts. Most of the physicians that see the Medi-Cal and low-income clients know about and refer patients to the program as well.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. One lactation consultant and 17 PCs staff the program, including the 6 original PCs from 1989.¹⁴ Of these, 15 are paid \$18 an hour and 2 volunteer their services. The PCs are temporary employees who have breast-fed their own children, have an interest in being a PC, and are flexible and willing to work evenings and weekends.¹⁵ Potential candidates complete an application and are interviewed. Some are then selected to participate in the training, without compensation. After completing the training, candidates take an exam. The results are used, in part, to determine who is hired. The number of hours they work varies a great deal with their language abilities, as some languages are in demand more than others. Some of the PCs work other part-time or full-time jobs as well, sometimes even for the WIC peer-counseling programs of other counties.

Training and Quality Assurance. Initially, the program contracted with the La Leche League to conduct train-the-trainer sessions for lactation consultants, lactation educators, and WIC nutritionists. After trying this and using various training curricula, program officials developed their own PC training manual and curriculum. The WIC lactation consultant facilitates the 24-hour training, which addresses anatomy, common breast-feeding problems and how to help, cultural differences, and nutrition. Since receiving the California Endowment grant, there have been two trainings for PCs. In addition, PCs receive in-service training at a biweekly staff meeting. For quality assurance, the lactation consultant regularly observes PC activities and reviews charts.

Record Keeping and Data Systems. The WIC Director provides the California Endowment with program updates every six months, as the grant requires. PCs are expected to document every client contact. Standardized forms, in triplicate, are used. One copy goes to the hospital, one goes to the PC, and one is sent for centralized processing into the WIC computer system.

Funding. The California Endowment grant is for \$500,000. Since 2001, the California Nutrition Network has given 50 cents for every \$1 spent of the California Endowment funding, increasing the total by almost another 50 percent. Most salaries are covered in the grant, but two are paid with WIC funds. The main cost of the program is the salaries of the PCs.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. When the grant was submitted in 2001, the exclusively breast-feeding rate in Berkeley was 29 percent.¹⁶ As of November 2003, it was 35 percent, which was the goal

¹⁴ In addition, an hourly lactation consultant is available when the full-time consultant is on vacation.

¹⁵ In most cases, PCs have breast-fed a child for at least seven months, but program officials do make some exceptions.

¹⁶ A PC program was already in place at this time in Berkeley.

outlined in the grant. The state rate was 10.8 percent in November 2003. These results are promising, although it is not possible to say definitively that this is attributable to the peer-counseling program. In addition, the WIC Director has noticed that exclusive breast-feeding almost always leads to breast-feeding for a year or more.

The program's success reflects the PCs and the support they receive from the lactation consultant. It is critical to have a full-time lactation consultant on-call after-hours to provide support and assistance to the PCs. It is also essential that breast-feeding education start early, even before a woman becomes pregnant. In general, clients give positive feedback about the program and look forward to receiving a call from their PC. In addition, PCs have an opportunity for career growth with the program. For example, one of the original PCs is now a supervising lactation consultant.

Key Challenges. Staffing was difficult at first, as many of the new PCs required significant support and training. In addition, there was only one lactation consultant to meet this need. Having two lactation consultants supervising the program would be ideal so that there would be more time to review the PCs' case notes, monitor and observe activities, and schedule individual meetings with the PCs. It is also a challenge to supervise a staff that works primarily from home, though biweekly PC staff meetings enhance communication. Staff turnover has been an issue as well. Some PCs have been terminated because they did not like to do paperwork or were providing inaccurate information. Others resigned because they felt "burned out" from being on the phone so much with clients, or they had personal issues to deal with. The WIC Director finds that her most stable PCs are married and have support at home to do this work.

Quality control and assurance has been a major challenge. PCs did not have office space until after the first year of implementation. During that time, PCs had no choice but to work from home without direct supervision. Some staff members took advantage of this system and were terminated. The WIC Director remarks that it is "extremely important" to have adequate space, telephones, furniture, and equipment in place before the PCs are hired, as well as to have the proper ratio of professional staff to PCs.

Lessons Learned. The WIC Director believes that this project can be replicated at other agencies, but she recommends that someone with experience in implementing a PC program be consulted. It is critical to get support and buy-in from the WIC agency and community stakeholders. The hospital component is very important, too, so that women can be contacted immediately after delivery, when establishing breast-feeding relationships is critical. The WIC Director also recommends paying the PCs a "decent" salary. Other counties that have started similar programs have lost PCs because the pay was inadequate. Finally, the WIC Director suggests following clients for six months after delivery and then providing them with contact information if they have questions or problems. It is difficult to follow clients for more than six months, especially as the PCs are busy enrolling new clients and so many old ones are becoming unreachable.

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TELEPHONE PEER COUNSELING BY VOLUNTEERS¹⁷ SOUTHWEST PENNSYLVANIA

OVERVIEW

Location: Washington and Greene Counties, Pennsylvania

Start Date: 1993

Target Population: Pregnant and breast-feeding WIC participants

Purpose: To encourage mothers to breast-feed and provide them with regular breast-feeding support after they start.

Services: The program trained volunteer breast-feeding peer counselors (PCs) to contact WIC participants during pregnancy and after birth, and to continue regular followup as long as they are breast-feeding. They provide support, routine breast-feeding assistance, and referrals to other sources of care, with supervision and backup from a lactation consultant.

Funding: The program, which cost very little, was paid for out of WIC breast-feeding funds.

Why Program Was Chosen: This program is unusual in that, over a period of 10 years, breast-feeding peer counseling was conducted by volunteers only. The PCs were trained and supervised by a lactation consultant. All services were provided by telephone from the counselors' homes, so that PCs could integrate their work with their home responsibilities. Although this type of program seems a useful model for agencies with tight funding, the agency is now moving to the use of paid PCs, because of the challenges noted.

Key Challenges: It became increasingly difficult to recruit volunteers. The limited availability of volunteers and the limited number of hours they could work meant the program could not serve all breast-feeding clients and that PCs contacted pregnant women only once.

¹⁷ Telephone interview, May 24, 2003.

BACKGROUND

Community Characteristics. Washington County is part of the Pittsburgh metropolitan area and adjoins Allegheny County. Its 2001 population was 200,000. Greene County is a rural (nonmetropolitan) county with a population of just over 40,000. It has a high poverty rate (15.9 percent in 1999 versus 11 percent for Pennsylvania as a whole). The populations of both counties are 95 percent white.

WIC Program Background. The WIC agency for Washington and Greene Counties is Community Action Southwest, a large community action agency that also sponsors Head Start and other family literacy programs, as well as the Child and Adult Care Food Program, among others. The program sponsors 13 WIC clinics throughout the area, one open 5 days a week, two open 3 days a week, two open 2 days a week, and others open less often (ranging from one day a week to once every two months). The less-frequent clinics are in locations like community centers and church basements. Fourteen full-time WIC staff and 3 part-time staff move around between the various locations. Each month the agency serves 4,800 WIC participants and has about 125 prenatal participants giving birth.

Program History and Objectives. The objectives of the Telephone Peer Counseling Program are to encourage breast-feeding initiation and duration by providing mothers with support from knowledgeable mothers in their own community. The program began in 1993, when the Breastfeeding Coordinator (who is now both the Breastfeeding Coordinator and the Nutrition Services Director [WIC local agency director]—hereafter, the Director) heard about the Texas peer-counseling program and, to save scarce WIC funds, decided to try something similar with volunteers. Before the peer-counseling program started, the Director saw mothers at the WIC clinics who needed help, took phone calls from mothers with breast-feeding questions, and worked with mothers with breast-feeding problems who were referred by WIC staff. She also tried to call prenatal participants soon before delivery to talk about breast-feeding and to provide support to mothers who breast-fed after birth, but she could not call everyone.

The Director led the development of the program. She attended the Texas Peer Counselor training, which gave her useful background. She developed the idea of volunteer PCs who were WIC mothers (or former WIC mothers) working out of their own homes. The program would provide a monthly stipend of \$25 to PCs to cover the cost of the phone and occasional trips to the WIC office for meetings. She also decided that PCs would serve only clients in their local calling areas, so they would not have to pay for toll calls.

She then recruited PCs. The original group was recruited through ads in the WIC program newsletter and recommendations from WIC staff—mostly the latter. The first training lasted three full days and was conducted in person. Ten women started the training, and six completed it and became PCs.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. PCs made an initial call to prenatal participants four to six weeks before their due date. Using open-ended questions, they asked the expectant mother how she felt about breast-feeding, and told her they were available to help if she decided to breast-feed. The

PCs gave pregnant women their home phone number. If a woman was adamant that she would not breast-feed, they did not call back, but if she wanted to breast-feed or was unsure, they tried to call as soon as possible after the birth. Sometimes, they heard of the delivery from WIC staff, but otherwise they tried calling around the due date to see how things were going, and called back if the mother had not yet delivered.

Although PCs gave out their home phone numbers, clients rarely called them. Instead, the PCs initiated most calls. The program's goal was that a PC would call a breast-feeding mother two or three times a week in the first month after birth, once a week in the second month, and about once a month thereafter, until weaning. However, they adjusted this schedule based on what worked for each mother—if she was experienced, she may have needed only occasional calls from the start; if she was having problems, she may have needed a call every day. Clients were often too overwhelmed to ask for help, but they were very appreciative when the PCs checked on them.

The PCs were also trained to give referrals and to alert mothers when a problem might be serious enough to require the doctor. PCs referred complex breast-feeding problems to the Director. They also made referrals to community agencies for services such as counseling for depression, women's shelters for domestic violence, help with getting a crib or diapers, and so forth. Each PC came to know the resources in her area well. If a mother was referred to a doctor in an emergency situation, the Coordinator was also notified—but this happened only a few times in 10 years.

Coordination and Collaboration. There was no formal collaboration between the volunteer program and other programs, but the community has become more supportive of breast-feeding over time. When the PC program started, the WIC Director was the only Internationally Board Certified Lactation Consultant (IBCLC) in the area. Hospitals did not have “rooming in” of babies with their mothers, and very little breast-feeding support was available. The

A PROGRAM IN TRANSITION

Community Action Southwest has recently moved to paid PCs, with the hope that they can serve more mothers. The agency joined a consortium with two other local WIC agencies and received U.S. Department of Agriculture (USDA) funding for two PCs, who will each work 10 hours a week in an office setting. Two of the volunteer PCs were hired as the first paid PCs at the agency, so they needed minimal training. The PCs are now covered by a union contract and were hired under union rules.

Our interview with the Director took place one month before these changes went into effect. At that time, the Director expected to discontinue using the volunteer PCs, because of union rules and because the paid counselors may be able to handle the full caseload. She also hoped the paid PCs will be able to make more prenatal contacts, to try to increase breast-feeding initiation as well as duration.

level of support has changed a great deal in the past 10 years. All but one of the local hospitals have lactation consultants, all have rooming in, and a lot more support is available in the community.

Participation. The peer-counseling program reached about half of new mothers in the two counties (a little over 60 a month), largely because not all mothers were in the local calling areas of one of the PCs. The Director used to call expectant and breast-feeding mothers in areas without PCs, but she has not been able to since she became the Nutrition Services Director three years ago. Thus, the more rural areas, which are less likely to have PCs, tend to be underserved. About 30 percent of WIC mothers choose breast-feeding (about 20 a month among those contacted) and receive additional follow-up calls from the PCs as described above.

Publicity/Outreach. The agency has not done publicity or outreach for the peer-counseling program, because they have never had enough PCs to cover all WIC women giving birth. However, there is a brief description of the peer-counseling program on the WIC part of the Community Action Southwest Website.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The Director supervised the program; she recruited the PCs, trained them, and reviewed their work. In the volunteer program, there have generally been seven to nine PCs at a time. During the early years, PCs tended to stay 4 to 5 years (and one stayed 10 years), but now they stay about 2 years. In part, the shorter tenures reflect welfare reform and increased pressure to take a paid job. In addition, PC experience motivates some mothers to move into the workforce, particularly as their children get older. Some PCs, however, continue peer counseling after they start paid work, but handle fewer cases.

PCs must have breast-fed a child for at least 6 months (all the current PCs breast-fed over a year) and have children no younger than 6 months old. They have to be former or current WIC participants. Women interested in becoming PCs filled out an application form and a survey in which they described their breast-feeding experience. The PCs received a \$25 monthly stipend for months in which they worked at least five hours. The PCs set their own hours, with the stipulation that they should call clients only between 9:30 A.M. and 8 P.M., unless clients gave them permission to call at another time. Most worked 5 to 10 hours a month.

The WIC agency used the computer to assign prenatal clients who will deliver soon to PCs in their local calling area. Each PC was assigned 15 to 20 pregnant clients a month, of whom about 5 would breast-feed. The contact lists were mailed to the PCs.

Training for Peer Counselors and Quality Control. The Director developed the original training and has updated it regularly. Initially, it was based on the training materials of the Texas peer-counseling program. Later, she changed it to include the same breast-feeding material used in training WIC staff. The Director had helped develop this statewide curriculum. The training also covers issues related to confidentiality, material on maternal and child nutrition, and a section on making referrals: when to refer to the Director (who is an IBCLC), WIC staff, and community agencies, and especially when to tell the mother to call the doctor, with procedures for following up to make sure the doctor was contacted. The Director also does most of the training, but sometimes other WIC staff have delivered parts related to child nutrition or WIC

procedures. The training initially was in a small group, but has increasingly been one on one, as new counselors joined the program one at a time as previous counselors left.

When a new counselor joins the program, the training includes only 12 hours of in-person training, and then from 8 to 15 hours of telephone training, in which the Director role-plays being the client. The Director trains the new PCs on how to handle introductory calls (including what to do if people are rude or hang up), and on how to handle the most common breast-feeding problems. Practicing counseling over the telephone works much better than practicing in person, as the PCs are forced to practice giving explanations and instructions without visual aids—for example, explaining the proper way to get the baby to latch on to the breast.

The Director was in frequent contact with trainees during their first month—she was often on the phone with each of them for two to three hours a week. Afterwards, she found they needed little supervision; she just called them once a month to check in. She tried to meet with the PCs at least quarterly, but met with them less frequently in the past year, because of the press of her other duties.

The Director received contact forms (discussed below) from PCs when the baby was weaned. She called about six randomly selected mothers who had weaned each quarter and asked them how it was to work with the PC. This provided a form of quality control.

Record Keeping. The Director designed a contact sheet for counselors to fill out for each client. It had basic contact information on the mother, and a section in which to enter data on the baby after the birth. It also included a checklist for types of contacts and issues PCs often encounter. On the back was an infant assessment that the PCs reviewed with the mother to determine whether the baby was having any trouble. This assessment, which included questions such as how many wet diapers the baby had per day, was used during every call for the first two months after birth, and sometimes later if needed.¹⁸ At the end of the form, the PCs attached notes on each contact. They mailed the form back to WIC when the baby was weaned.

Funding. The only concrete cost for the program (when operating as a volunteer program) was the PC stipends, which came to \$2,000 to \$3,000 a year. The stipends were funded out of WIC breast-feeding funds. (Some of the counselors worked fewer than 5 hours a month and thus did not get stipends.) The Director's time was not really an extra cost—she would have been calling mothers herself if she had not had PCs to do it. She spent only about one day a month checking in on PCs, except during training periods. If anything, the WIC agency may have saved money from having PCs, as they handled the more routine breast-feeding issues, so the Director did not have to.

¹⁸ The Director noted that the assessment was especially important when mothers did not see the pediatrician until two weeks after birth. Now, babies have a three-day checkup visit, which helps in catching early feeding problems.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. The program is interesting because it is an example of a successful peer-counseling program implemented in a largely rural area. In addition, it has been staffed by volunteers, which has kept the cost very low.

There is some evidence that the PCs have succeeded in improving the duration of breast-feeding among WIC mothers who initiated it, but they do not seem to have affected initiation rates. In particular, in the early years of the program, the Director monitored breast-feeding initiation and duration rates among clients in each clinic her agency ran. Average breast-feeding durations were much longer in clinics with PCs in the area than in clinics with no PCs (12 to 18 weeks versus 4 weeks), but initiation rates were no different (about 30 percent throughout the area). Lately, she has not monitored these rates, because of her additional responsibilities and because of a recent switch to a new computer system. Because the PCs have had the resources to make only one contact during pregnancy, the Director believes they have not affected initiation rates.

Clients are very positive about their PCs. When the director calls to get feedback on the PCs, she often hears comments from mothers such as that they could not have breast-fed as long without the support of the counselor. Other typical comments include how the counselor did not make them feel bad for weaning, but praised them for breast-feeding as long as they did.

Another positive outcome of the program was the PCs' increased self-confidence and new skills learned, which have helped them to pursue further education or to enter the workforce.

Key Challenges. The major challenges this program faced included the difficulty finding volunteers in the more rural parts of the counties and the limited hours that most volunteers were willing to work. These problems limited the ability of the program to serve all women giving birth in the two counties. They also meant that the program did not have the resources to contact pregnant women more than once. Now that they have a regular, paid staff, the WIC agency hopes to increase its contacts with pregnant women. Another issue has been the limited time available for the Director to supervise the program, as funding constraints have forced her to take responsibility for both the overall administration of the WIC program and for the coordination of breast-feeding promotion. Additional funding for WIC nutrition services or funding from other sources would alleviate these problems. (As noted, outside funding was received for the move to paid PCs.)

Lessons Learned. The WIC Director for Washington and Greene counties believes that volunteer breast-feeding PCs could be useful in an agency that is short of funding, but that they could not be expected to stay as long as her original group did. Her experience was that once the counselors were trained, she did not need to spend much time monitoring them.

The program is unusual in that it allows PCs to work out of their homes, but the results suggest that this model can work. Telephone counseling out of the home seems of particular value in a rural area, where transportation is not always available. The use of telephone training to help counselors prepare to provide assistance over the telephone may be of interest to other programs. The restriction of the PCs to local calls was a concern; other agencies might want to explore different options for telephone connections.

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B. MULTIFACETED PROGRAMS WITH STRONG OUTREACH COMPONENTS

This section describes programs that include readily available individualized help, either by phone or in-person, complemented by extensive outreach to community health professionals to “sell” the idea that WIC supports breast-feeding and is not just a source for infant formula. Two of the programs (Riverside and Miami) provide the support largely through a hotline with in-person meetings as a backup, while one (Sacramento) provides support largely through clinic appointments with lactation consultants. These programs also include a wide range of other services, which are summarized in Table II.1.

TABLE II.1
BREAST-FEEDING SUPPORT SERVICES AVAILABLE IN
MIAMI, RIVERSIDE, AND SACRAMENTO

Services	Miami	Riverside	Sacramento
Training programs for WIC staff and/or other health professionals	X	X	X
Incentives for mothers	X	X	
Support groups	X	X	
In-hospital counseling and/or support to hospital staff	X	X	
In-person counseling in WIC clinics available daily		X	X
Breast pump program with a large stock of pumps available	X	X	X
Calling mothers at regular intervals	X	X	
24-hour helpline	X ^a	X	
Home visits			X
Peer counseling	X		X

^aIn Miami, the helpline is staffed during the day, and an answering machine is used at night and on weekends. The machine is only checked occasionally, so the helpline does not have full 24-hour coverage.

Two of these programs (in Riverside and Sacramento) have extensive outside funding. The Riverside program serves all women in the county, which clearly makes it a “WIC Plus” program for which outside funding is appropriate. The Miami program, which does not have non-WIC funding, is a good example of comprehensive services in a more constrained budgetary environment.

LOVING SUPPORT BREAST-FEEDING PROGRAM¹⁹
RIVERSIDE COUNTY, CALIFORNIA

OVERVIEW

Location: Riverside County, California

Start Date: Breast-feeding services have been available since 1982 to WIC clients, a 24-hour telephone helpline began in 1997 for WIC clients, and helpline services were expanded to all Riverside County residents in 2000.

Target Population: All pregnant and breast-feeding women who live in Riverside County.

Purpose: To meet the Healthy People 2010 breast-feeding objectives by providing help and support to breast-feeding women and collaborating with the health professionals that care for them.

Services: 24-hour helpline, individual assistance, prenatal education, educational materials and incentives, breast pump program, outreach to the medical community, training of health professionals, outreach to employers.

Funding: \$480,000 from California's Proposition 10 Tobacco Tax Initiative, and several hundred thousand more in special grants from the state WIC agency, plus some smaller grants and in-kind contributions.

Why Program Was Chosen: This program offers breast-feeding support 24 hours a day, 7 days a week, 365 days a year to all county residents through a helpline. Focusing outreach on one key message, "contact the helpline if you need breast-feeding assistance," is one key to the program's success. In addition, Breastfeeding Representatives, who are responsible for a geographical territory, conduct outreach similar to that done by formula company representatives. The rich menu of services and extensive outreach and training offered to health care professionals work together, yet some subset may be useful to other agencies with less-generous funding.

Key Challenges: At first, it was challenging to convince community health professionals to refer patients to the breast-feeding helpline, but extensive outreach has largely overcome their reluctance. At this point, an important challenge is to keep a high level of services as the popularity of the program grows. The geographic dispersion of the county's population is also a challenge.

¹⁹ Telephone interview, May 13, 2003; site visit, August 12-13, 2003.

BACKGROUND

County Characteristics. Riverside County is one of the fastest growing counties in the United States. In 2001, the population was 1.6 million, with a 5.9 percent increase between April 1, 2000, and July 1, 2001. The population is growing as people migrate to the county for the lower cost of housing and living. In addition, businesses are relocating from Los Angeles and San Diego to the county because of lower real estate costs. It is also a large county in land area, comprising 7,207 square miles, about half of which is desert, and extending from Orange County to the Arizona border. According to 2000 figures, 66 percent of the population is white and 19 percent report some other race, both of which are higher than the California average. In addition, about 6 percent of the population is African American and 4 percent is Asian; both figures are lower than the state average. Regardless of race, 36 percent are of Hispanic or Latino origin. In 1999, 14 percent of the population of both California and Riverside County lived below the poverty level, higher than the national average.

WIC Program Background. The Nutrition Services Branch of the Riverside County Department of Health (which is the local WIC agency) has a \$9.3 million annual budget and 170 staff, including 40 dietitians. Funding streams include the U.S. Department of Agriculture (USDA), Proposition 10, California Nutrition Network, California Health and Disability Prevention Program, and medical nutrition therapy insurance reimbursement. The department is responsible for WIC, Loving Support, and a range of other nutrition programs.

The caseload that Riverside WIC handles is larger than or comparable to that of some states. The WIC program serves 60,000 clients a month in 18 clinics. According to August 2003 figures, 75 percent of participants are Hispanic, 53 percent speak English, about 10 percent are prenatal women, and 5 percent are breast-feeding mothers. Monthly clinic census ranges from 800 in the smallest clinics to 10,000 in the larger ones. Proposition 10 funds allowed WIC to expand clinic hours to some evenings and weekends, and to serve an additional 3,000 clients each month. The WIC Customer Service Center is a centralized call center that answers a toll-free number for people inquiring about WIC or scheduling a clinic appointment. On average, the call center receives 10,000 to 14,000 calls a month.

Program History and Objectives. Since 1982, the Riverside WIC program has provided comprehensive prenatal education, lactation education, and breast-feeding support groups for WIC clients, as well as extensive staff training. However, WIC staff did not have the time to provide much individualized counseling and help with breast-feeding. The breast-feeding helpline began in 1997, but at that time, it was available only to WIC clients and operated only during regular business hours. The helpline came into being because WIC staff members saw that by the time women came to enroll their infant in WIC, it was too late to address breast-feeding problems, since many mothers, lacking support and assistance, had already stopped breast-feeding. In addition, women who were not enrolled in or eligible for WIC received limited, if any, information and support.

California voters passed the Proposition 10 Tobacco Tax Initiative, part of the Children and Families Act, in November 1998. The proposition increased tax on cigarettes and tobacco products to fund intervention services for young children and their families. The Nutrition Services Branch applied for and was awarded Proposition 10 funds from the First 5 Riverside

Commission to expand and enhance the existing breast-feeding services to all Riverside County residents, not just WIC participants. Upon receiving the funding in 2000, program officials classified all breast-feeding supportive services under the umbrella name “Loving Support Breastfeeding Program.”²⁰ The program also began extensive community outreach at this time, with both clients and health care professionals.

Loving Support is committed to meeting the Healthy People 2010 objectives pertaining to breast-feeding: (1) 75 percent of new mothers must leave the hospital breast-feeding after delivering their babies; (2) 50 percent of new mothers must continue to breast-feed their babies for the first six months of life; and (3) 25 percent of new mothers must continue to breast-feed their babies for at least one year.

To meet these goals, Loving Support developed five “Standards for Success”: (1) increased numbers of pregnant women will receive accurate and reliable information regarding the importance of and how to initiate breast-feeding; (2) increased numbers of newly delivered mothers will receive information, support, and help for breast-feeding in the immediate postpartum period; (3) increased numbers of women will be successful at breast-feeding their babies through at least the first year of life; (4) increased numbers of mothers will continue to breast-feed after returning to work or school; and (5) standardized reports using collected data will be generated on a quarterly basis to demonstrate the successes in the first four standards.

Target Population. Loving Support targets all pregnant and breast-feeding women in Riverside County. WIC also offers additional breast-feeding services only for WIC clients. The program also conducts substantial community outreach targeting health care providers and employers.

PROFILE OF INNOVATIVE PROGRAM

Loving Support offers a wide range of breast-feeding services for all county residents, but the WIC clinics provide additional breast-feeding services to WIC clients. Although Loving Support and WIC are separate programs, they are very integrated. Because the line is difficult to draw, and the WIC services would at any rate be important in context, we discuss the full range of breast-feeding support services offered by the Riverside County Department of Public Health in this section, indicating when services differ for WIC clients and others.

Services Provided to Parents/Caregivers

Helpline. A toll-free breast-feeding helpline is available to all Riverside County residents. Support, encouragement, and technical assistance are provided 24 hours a day, 7 days a week, 365 days a year. Two full-time Helpline Counselors, who are lactation educators, manage the calls during weekday business hours. The Breastfeeding Representatives and the Breastfeeding

²⁰ The program purchased the rights to use the Loving Support logo and name from Best Start Social Marketing of Florida.

Coordinator rotate on-call after-hours duty for the helpline weekly.²¹ After-hours calls are returned within 30 minutes.

The helpline addresses a variety of concerns: breast abrasions, infant thrush, medication safety, alcohol consumption, latch on, infant weight loss, jaundice, weaning, and pumping due to mother and infant separation. Some mothers receive so little support from family and friends that often they simply need a friendly voice to encourage rather than criticize them. The Helpline Counselors use the La Leche League International's *Breastfeeding Answer Book* protocols, which are available in English and Spanish and on CD-ROM (Mohrbacher and Stock 2003).

In addition to receiving incoming calls, Helpline Counselors call mothers who fill out and mail postage-paid postcards requesting enrollment in the Loving Support Program. WIC participants receive a postcard, included in a WIC Last Trimester Help Bag, during their last-trimester counseling session. To reach additional mothers, Certified Nurse Assistants and other medical staff members distribute these postcards to new mothers in hospitals after delivery. Riverside County Public Health Nurses, the Tobacco Free Families Health Education Program, and the Black Infant Health Program also distribute the postcards to pregnant women. These postcards include the mother's name, contact information, and a request to receive a call from a Helpline Counselor and join the program. Calls are made upon receipt and allow the Helpline Counselors to provide education, help, and support to new mothers to ensure that breast-feeding gets off to a good start. Helpline Counselors also do follow-up calls to all Loving Support Program mothers at critical milestones in the infant's development (3 weeks, 6 weeks, 3 months, 6 months, 9 months, and 12 months; or until weaning) in order to offer anticipatory guidance regarding growth spurts, returning to work, teething, introduction to solid foods, and weaning advice from family or friends.

In some situations, a Helpline Counselor is unable to provide over the telephone the assistance the mother needs. If a serious medical situation is apparent, the Helpline Counselor will suggest that the mother seek medical assistance from her physician or, in life-threatening situations, go directly to a hospital or call 911. Typically, however, the Helpline Counselor will refer a client to a Breastfeeding Representative in the client's geographical area.

The average number of calls and the average call length varies, but in a typical day, the Helpline Counselor will receive 20 calls and complete 30 follow-up calls. Call length can vary from a few minutes to an hour, depending on the need or the number of questions.

Individual Assistance. Breastfeeding Representatives provide individual assistance to mothers primarily in WIC clinics, hospitals, and over the telephone, and to a lesser extent in doctor's offices or in the home. When a Breastfeeding Representative receives a referral from the Helpline Counselor, she calls the client to discuss the problem or breast pump need over the

²¹ A bilingual Helpline Counselor is teamed with a Breastfeeding Representative for on-call duty, if the latter is not bilingual. Staff members are paid for 1 hour for every 8 hours on call but not active, and bank compensatory time-and-a-half for time spent responding to calls.

phone and, if needed, schedules a meeting time and place, often at a WIC clinic. Often a mother knows what to do but needs in-person reassurance that she is doing everything correctly. In other situations, a breast-feeding mother may have pain that warrants intensive assistance. Breastfeeding representatives can arrange to see mothers at WIC clinics; some have walk-in hours, and others require an appointment, which will be scheduled either the same day or the next day. As a standard procedure, after Breastfeeding Representatives provide individual assistance, the Helpline Counselors will conduct the follow-up calls. However, some Breastfeeding Representatives conduct their own follow-up calls. In general, immediate follow-up is provided to mothers having serious problems.

A goal of Loving Support is to help all the county's 14 hospitals become "baby-friendly," not only by having Breastfeeding Representatives provide bedside counseling to postpartum women, but also by training medical staff to provide such support. In general, the Breastfeeding Representative trains medical staff members to provide bedside assistance, and the Breastfeeding Representative counsels a patient only if a staff member feels it is necessary. In particular, the Riverside County Regional Medical Center (RCRMC) nurses in the neonatal intensive care unit (NICU) and Obstetrics, Labor, and Delivery unit work with the Breastfeeding Representative to ensure that all mothers receive bedside counseling and information on breast-feeding from either the Breastfeeding Representative or a nurse. For example, one week after an infant is discharged from the NICU, the Breastfeeding Representative and a NICU nurse assess the breast-feeding mother and infant. In addition, the hospital has collaborated with Loving Support to offer a weekly walk-in lactation clinic for any breast-feeding mother needing assistance.

Prenatal Education. Prenatal education classes are available only to WIC clients, and are facilitated by WIC staff members at the clinics. There are three components in the prenatal breast-feeding education efforts: (1) group education topic one month after prenatal enrollment: "What have you heard about breast-feeding?" (2) group education topic two months before delivery: "What to expect in the hospital," and (3) individualized consultation and distribution of the WIC Last Trimester Help Bags.

Breast Pump Program. Breast pumps are available on loan to women, including teenagers, who are working, going to school, or separated from their infants. Pumps can be obtained at WIC clinics, or a Breastfeeding Representative may deliver them to the hospital or home. Non-WIC mothers give a \$30 deposit, but attachments are given for free from Loving Support as part of the Proposition 10 funding. All mothers borrowing a pump sign a pump loan agreement. The completed agreements are mailed or faxed to the central Loving Support office for input into a pump distribution database. The hard copy of the agreement is kept at the clinic or hospital where the pump was distributed. A daily printout, entitled the "Breast Pump Availability Report," is generated and distributed to Loving Support staff to identify which clients and clinics have pumps. WIC mothers with breast pumps are flagged in the WIC Integrated Statewide Information System so that WIC staff members know to follow up.

Support Groups. Support groups are available each month at all WIC sites for WIC participants and weekly at two hospitals for anyone who is interested. Lactation educators who are located in the WIC clinics facilitate the WIC groups. Breastfeeding Representatives, along with hospital staff that have been trained by Loving Support, facilitate the hospital-based support groups. Topics for discussion include adjusting to parenthood, breast-feeding: a family

experience, returning to work, breast-feeding the older baby, weaning with love, and wearing your baby (that is, using a baby sling). Each group has about 20 people, and 2,500 people attend support groups each month.

Materials and Incentives. A Loving Support Prenatal Breastfeeding Education Package is sent to all pregnant women who call the helpline to enroll in the Loving Support Program. This package includes the pamphlets “Is Breastfeeding Right for Me?”; “Ten Healthy Habits While You Are Breastfeeding”; “Ten Ways to Relax While Breastfeeding”; “Ten Tips on How Dad Can Help with the Baby”; and “Eat 5 a Day the California Way.” A Loving Support introductory letter and refrigerator magnet with the helpline number is included.

WIC participants receive, to take to the hospital for delivery, a WIC Last Trimester Help Bag that contains a “Breastfeeding: The Best Start” pamphlet, a 10-day diaper log, a “Dear WIC, I had my baby...” postcard, a “Wear Your Love!” necklace flyer, a “No Bottles” sticker, and a Loving Support refrigerator magnet. In January 2003, Wear Your Love necklaces were added as an incentive for WIC participants to breast-feed exclusively and to attend monthly breast-feeding support or nutrition education sessions. The necklace has a baby head charm of the appropriate gender, race, and ethnicity, and mothers who breast-feed exclusively receive a bead for the necklace when they attend a support group or nutrition education session.

Loving Support mails inspirational cards to encourage, congratulate, and honor breast-feeding mothers at critical milestones in the baby’s development (3 weeks; 3, 6, 9, and 12 months). In addition, displays in physician’s offices include a “Take-Away” card that offers up-to-date breast-feeding information, helpful hints, and support resources.

Community Outreach to Medical Professionals

Loving Support wants to ensure that health care providers have the knowledge and resources necessary to help their patients choose and continue to breast-feed. The seven Breastfeeding Representatives visit 300 prenatal, pediatric, and family practice care providers and 14 hospitals on a monthly or biweekly basis. During a visit, the Breastfeeding Representative will ask staff if they have any material or training needs, or any general questions about breast-feeding. The Breastfeeding Representatives will also restock educational materials, displays, and take-away cards at this time. There are different displays for the obstetricians’/gynecologists’ (OB/GYN) and pediatricians’/family practitioners’ offices. Both provide bilingual displays with a Loving Support business card, but the former also contains a pamphlet with more details on breast-feeding and Loving Support. Each office receives either the Loving Support Resource Guide for OB/GYNs or the Loving Support Resource Guide for Pediatricians/Family Practitioners. Both contain information on the Loving Support and WIC programs, the breast-feeding policy statement of the American Academy of Pediatrics and the Family Practice Association, resources, camera-ready patient handouts, and a section on current research. These guides, particularly the current research section, are updated on a monthly basis when Breastfeeding Representatives visit offices. In addition, a quarterly Baby-to-Breast newsletter is distributed to all partnering health professionals with up-to-date information and resources on breast-feeding. In addition, hospitals are provided Loving Support crib cards to replace the pharmaceutical companies’ crib cards.

Community Outreach to Employers

In 2002, the Loving Support staff developed the “Breastfeeding Friendly Workplace” package to help local businesses comply with California’s AB1025-Lactation Accommodation Law, which imposes requirements upon employers concerning safety, work conditions, and time to accommodate employees who desire to express breast milk. Loving Support offers to come to the workplace and provide technical assistance.

Participation

Loving Support wants to reach at least 50 percent of mothers who give birth in Riverside County, a challenge considering that there are more than 24,000 infants born each year in the county. In the first year of the program, the Loving Support program counseled 5,150 mothers between July 2001 and June 2002. Now, on average, Loving Support counsels 4,000 to 5,000 clients, and the helpline receives or returns 4,000 to 5,000 calls *each quarter*. Specifically, the helpline received or returned 4,412 total calls in April through June 2003. Of those calls, 1,730 were initial calls and 2,682 were follow-up or repeat calls, representing 2,724 individual mothers. During the quarter July–September 2003 the Helpline Counselors received or returned 4,743 total calls. Of those calls, 1,804 were initial calls and 2,939 were follow-up calls.

The typical helpline client varies, but the helpline receives many calls from first-time or young mothers who do not know much about breast-feeding. Most calls are from WIC participants, and many initial calls are from new mothers in the hospital who received literature or a referral from medical staff. Fathers or male partners will occasionally call on behalf of the mother, as will other relatives. It is also common for medical providers to call the helpline for information to assist their patients. About 3 percent of calls are from mothers who do not live in the county. Loving Support tries to help these mothers over the phone. If the caller needs in-person assistance, Loving Support either refers them elsewhere, if such help exists, or will try to meet them at a clinic.

Coordination and Collaboration

Loving Support maintains extensive collaborations with agencies and organizations in the county, including area hospitals, doctor’s offices, and pharmacies. For example:

- Loving Support provides referrals to and receives referrals from the La Leche League so that breast-feeding mothers receive as much support as possible.
- Loving Support has worked with one pharmacy to display breast-feeding supplies in a special section and has supplied the reference book *Medications & Mothers’ Milk* (Hale 2002) to 18 pharmacies.
- In addition, Breastfeeding Representatives participate in and often organize regional breast-feeding networks and coalitions comprising professionals, mothers, and other interested persons.

These are only some of Loving Support’s extensive collaborations.

Publicity and Outreach Efforts

The main message for all publicity efforts is simple: anyone in Riverside County can call the Loving Support Breastfeeding helpline 24 hours a day for breast-feeding assistance. The program uses multiple mediums to publicize this message, including displays in OB/GYN and pediatricians'/family practitioners' offices, the Baby-to-Breast newsletter, magnets, business cards, magazine and bus shelter advertisements, movie theater advertisements, public service announcements, Lunch and Learns, and prenatal education classes. World Breastfeeding Month in August provides additional exposure through press releases, health fairs, and a county proclamation. In addition, as discussed earlier, the program uses postcards at WIC and the hospitals, bags with magnets and other information, and outreach to health care providers to obtain referrals or calls to the helpline. According to program tracking forms, most clients called the helpline after receiving a magnet or business card at WIC or their doctor's office.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The Loving Support Program has 13 staff members: the Breastfeeding Coordinator who is the overall project coordinator, 8 Breastfeeding Representatives of which 1 is a Senior Nutritionist helping to oversee the project, 2 Helpline Counselors, 1 data entry clerk, and 1 clerical support clerk. While personal experience is not a requirement for a Loving Support position, all but one staff member have personal breast-feeding experience. The Chief of Nutrition Services and the WIC Director spend a limited amount of time on the program and are not funded through Proposition 10 funds. The Breastfeeding Coordinator supervises the Breastfeeding Representatives, Helpline Counselors, and clerks.

The Breastfeeding Representatives have varying backgrounds, but all need to be enthusiastic and passionate about breast-feeding. Some are registered dietitians, others public health professionals, WIC staff members, or teachers. The Breastfeeding Coordinator and two Breastfeeding Representatives are Internationally Board Certified Lactation Consultants (BCLCs). Breastfeeding Representatives are classified as Health Education Assistants, which requires a four-year degree or a two-year degree plus two years of experience. They have three primary responsibilities: direct client services (including pump distribution), outreach and technical assistance to the medical community, and training health professionals. The first two roles require a significant amount of travel. Breastfeeding Representatives are responsible for one to three hospitals, two to three WIC clinics, and all the OB/GYN and pediatricians'/family practitioners' offices in their geographical region.

The Helpline Counselors are classified as Health Service Assistants, a position that requires a high school degree. They must be bilingual and have an understanding of the community.

Although WIC staff members are not funded through the Loving Support program, each WIC clinic has a lead lactation educator responsible for teaching breast-feeding classes, facilitating support groups, and managing and distributing breast pumps for their clinic participants. When the clinic's Health Service Assistants, Health Education Assistants, or Nutritionists are unable to provide assistance to a breast-feeding mother, the lead lactation

educator will try to help the mother. However, if there is a challenging case that the lead lactation educator is unable to manage, a Breastfeeding Representative is contacted. The WIC clinic lactation educators report to the supervising nutritionist in each clinic. However, they also meet bimonthly with the Breastfeeding Coordinator.

Training and Quality Assurance. The Breastfeeding Coordinator developed and coordinates the Trained Lactation Counselor (TLC) training that takes place one or two times a year. The Breastfeeding Coordinator, guest speakers, and other Loving Support staff are the trainers. All new WIC employees, Helpline Counselors, WIC clinic lactation educators, and Breastfeeding Representatives attend this 40-hour training, but other health professionals can attend as well. WIC employees working at the Customer Service Center attend a modified one-day training.

Monthly in-services and staff meetings for Loving Support and WIC staff members provide additional training opportunities. Loving Support staff members and lead lactation educators often attend other trainings, including Birth and Beyond courses, the La Leche League annual conferences, Loma Linda University's Perinatal Services Network training, and courses offered at the Lactation Institute in Encino, California.

RCRMC is the only hospital in the county with a medical resident training program that includes Loving Support. As part of their family practice, obstetric, pediatric or physician assistant's rotation, all RCRMC residents, as well as area dietetic interns, participate in a mandatory three- to four-hour rotation in the walk-in help clinic, where they learn about helping mothers with latching on and other common problems from the Breastfeeding Representative assigned to RCRMC. They also observe bedside teaching.

The Obstetrics, Labor, and Delivery unit hosts a Skills Day once a year for its nursing staff members. Nurses receive a hands-on "refresher" on breast-feeding by spending 30 minutes with the Breastfeeding Representative. In addition, it is mandatory that all this unit's nurses receive training on bedside counseling; two nurses at a time spend a morning with the Breastfeeding Representative, and the bilingual Certified Nursing Assistant (CNAs) spend two full days with the Breastfeeding Representative. The Breastfeeding Representative assigned to RCRMC has also trained all NICU nurses.

Training of hospital staff members is limited because Loma Linda University has a successful Perinatal Services Network training program that trains hospital staff, primarily nurses, in breast-feeding. Loving Support collaborates and coordinates efforts with the Perinatal Services Network to ensure that they enhance rather than duplicate the work in the hospitals. Specifically, Loving Support has provided some nurses the opportunity to shadow the breast-feeding representatives in bedside counseling of new mothers. Loving Support also trains all county-employed Public Health and Clinic Nurses in breast-feeding support through a one-day new-employee training and an annual one-day update.

Record Keeping and Data Systems. The Loving Support initial call and program enrollment tracking form includes: name, contact information, language, infant's name, infant's birth date, where infant was born, breast-feeding or formula-feeding status, how they heard about Loving Support, and the type of consult (such as incoming call, called out, in-person contact).

The follow-up tracking form includes similar information as the initial tracking form, with the addition of inquiries regarding breast-feeding termination, combination feedings, and a section for notes. Helpline Counselors and Breastfeeding Representatives use these forms when providing individual help over the phone or in person. Breastfeeding Representatives send the original form to the central Loving Support office for processing, often after photocopying the form for their records.

Funding. For fiscal year (FY) 2002–2003, Proposition 10 provided \$480,000 to support, expand, and enhance the breast-feeding program for WIC participants and move beyond the WIC client base. As of November 2003, Loving Support was in its second two-year agreement with First 5 Riverside. This agency wants awardees like Loving Support to sustain the program on their own eventually. This is a challenge for Loving Support, as there is a growing need and an already insufficient amount of staff and community resources to meet the need. The WIC program currently funds one Helpline Counselor. Loving Support is considering having the Medi-Cal managed care program provide a Helpline Counselor, since many of the clients receiving services are also Medi-Cal clients. There is also a potential to bill Medi-Cal and insurance companies for Loving Support services in hospitals and outpatient clinics.

LUNCH AND LEARNS

In 2003, Loving Support conducted about 198 Lunch and Learn sessions for 873 people working in OB/GYNs', pediatricians', or family practitioners' offices; hospitals; and other health clinics in the county. Funding was from a special grant from the state WIC program. A Breastfeeding Representative developed the Lunch and Learn facilitators' manual, and Breastfeeding Representatives facilitated the actual presentations, which could last anywhere from 15 to 90 minutes, depending on the audience's interest in breast-feeding and time constraints.

Temporary Office Assistants were hired for this project, and each was assigned to a Breastfeeding Representative to assist with logistical and clerical issues.

The Lunch and Learns discussed Loving Support services and how breast milk "stacks up" to formula. Regarding the latter, large colored Lego blocks, each representing a specific component of breast milk, were stacked to illustrate the difference in breast milk and formula. By the end of the demonstration, there was a tower several feet high for breast milk and a small stack of blocks for formula, which indicated that breast milk has more to offer than artificial human milk. Program officials note that the demonstration was important because at the same time, pharmaceutical representatives were visiting doctors' offices to inform them of the new "brain development" infant formula newly supplemented with "special" lipids. A healthy lunch is also provided to participants.

Loving Support is currently searching for funding to continue this well-received project.

In FY 2002–2003, Loving Support received \$250,000 in WIC funding, and \$133,000 from a WIC Best Practices Grant for the Lunch and Learns (see box). The Riverside County Children and Families Commission also provides funding for Loving Support. Many hospitals, clinics, and community groups offer office or meeting space at no cost.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. Program officials cite three significant successes. First, breast-feeding rates among WIC clients have increased. In 1999, the Riverside County WIC exclusively breast-feeding rate was 10 to 11 percent. The goal of Loving Support is to increase these rates by 1.5 percent each year so that by 2010, the Riverside County WIC exclusively breast-feeding rate is at 20 percent. In June 2003, the exclusively breast-feeding rate among the WIC population in Riverside County was 14.5 percent. It rose to 14.8 percent in August and 15.1 percent in September. Second, there is an increased awareness and augmented support from community health care providers who are communicating breast-feeding as the norm to their clients. Third, the helpline and comprehensive outreach program has increased awareness of breast-feeding among the WIC population and the general public. More people in the community are talking about breast-feeding, and it is becoming more common and accepted.

Families have been very appreciative of the Loving Support program's 24-hour service and follow-up calls. Clients often call and send thank-you letters to Loving Support staff members. Program officials repeatedly hear clients say, "I wish that you had been around years ago," or "I wish that I had known about this service with my first child." Many breast-feeding women remark, "If you were not here, I would have quit."

Health care providers appreciate the services of Loving Support as well. The resources, training, and helpline support allow them to better meet the needs of their breast-feeding clients. Many carry Loving Support business cards in their lab coat pockets so they can easily make referrals. They see the program as especially beneficial to young and first-time mothers. Furthermore, WIC staff members value the quality breast-feeding services since they cannot spend much time with their breast-feeding clients because of busy caseloads. WIC staff members also have greater knowledge and confidence in discussing breast-feeding because of the TLC training and frequent updates from the program.

In general, the Loving Support staff is energized and enthusiastic about what they do. They do whatever it takes to help a breast-feeding mother in need.

Key Challenges. Initially, it was difficult to convince doctors and other health care professionals to refer their patients to the Loving Support program, or to allow outreach materials to be displayed in their offices. At that point, the helpline was not widely known, and the Breastfeeding Representatives had not yet established a credible reputation with the wider community. However, now doctors enthusiastically refer patients to the program, because more of their patients have expressed an interest in breast-feeding over the past three or four years.

Further, it is challenging keeping up with the popularity of the program. Once a client is entered into the database, she will receive a series of phone calls from a Helpline Counselor.

Following up with as many as seven contacts (one prenatal and six postpartum) for every client throughout the baby's first year is time-consuming for staff members. Another large challenge is the geographic size of the county. Breastfeeding Representatives spend a significant amount of time traveling throughout their territories.

At a community level, overcoming the barriers to breast-feeding is a challenge for staff members and clients. These barriers include embarrassment to breast-feed in public, fear that not enough milk is produced, and challenges in going back to school or work. In addition, some in the Hispanic culture believe that the first week of breast milk is "dirty," and some Hispanic mothers think that formula is better because it costs more. Of greater concern is that many women do not have the support of their male partner, friends, or family to breast-feed.

Lessons Learned. The extensive services provided in Riverside are clearly beyond what most WIC agencies can contemplate, even with outside funding. If a WIC program has minimal breast-feeding services, Loving Support program officials suggests that the program implement a 24-hour helpline so that clients always have access to help. The helpline receives many calls from frantic mothers on Friday afternoons, on weekends, and in the middle of the night. However, if there was no helpline, or if the helpline was only available during business hours, the mother might resort to formula and give up on breast-feeding altogether. Targeting all outreach materials around a simple message, "Call the hotline if you need breast-feeding help," seems to be an important source of the program's success.

Another priority for program planners is to implement a system so mothers receive support in the hospital immediately after delivery and a supportive call during the first few days at home with the new baby. Providing services in the hospital or coordinating with hospital staff is critical to helping mothers initiate breast-feeding.

The idea of having "Breastfeeding Representatives" that do for breast-feeding what formula company representatives do to sell formula is a very creative part of the Riverside program, but may be more than agencies can afford without substantial outside funding. However, Riverside staff pointed out that a WIC agency could "get the word out" with limited funding and still produce an increase in enrollment rate or clients served. For example, Loving Support produced magnets. They were not very expensive, but many clients tell Loving Support staff members that they learned about the program because they picked up a magnet and put it on their refrigerator. Outreach to health professionals also is an important element of the Breastfeeding Representative's work that other agencies could (and do) adopt in a scaled-back form.

Riverside staff commented that communication skills, flexibility, and passion are important attributes to look for in staff members. Different strategies work for different people, but the key for breast-feeding success is not to give up and to seek out help and support.

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LACTATION CONSULTANT SERVICES²² SACRAMENTO COUNTY, CALIFORNIA

OVERVIEW

Location: Sacramento County, California

Start Date: June 2002, a three-year pilot that will continue if funding is available

Target Population: WIC mothers within 10 days of giving birth, participants in the Birth and Beyond program, clients who receive county public health nursing services, and relevant health care professionals

Purpose: To reduce the number of WIC mothers who discontinue breast-feeding due to a lack of support by providing enhanced breast-feeding services and educating health care professionals about the benefits of breast-feeding.

Services: Full-time lactation consultants offer consultations in the WIC offices, technical assistance through a breast-feeding helpline, home visits, and a Spanish-speaking peer counselor. Another key component is training WIC staff, Birth and Beyond staff, Sacramento County Public Health Nursing Services, and community doctors and nurses about the importance of breast-feeding.

Funding: \$1,500,000 over three years from Proposition 10 tax revenues²³

Why Program Was Chosen: Full-time professional lactation consultant services are available to WIC clients during office hours, along with home visits. The program also includes active collaboration with local organizations to promote awareness of the benefits of breast-feeding.

Key Challenges: The county would not allow the program to hire lactation consultants as regular employees with benefits. It was also a challenge to gain acceptance for the program among regular WIC staff and other health professionals. Finally, it could be difficult to arrange private space for the consultants to see clients at WIC clinics.

²² Telephone interview, April 28 and May 2, 2003.

²³ In 1998, California voters passed Proposition 10, which levied a tax on cigarettes to generate funding for children's health programs.

BACKGROUND

County Characteristics. Sacramento County is the eighth-most-populated county in California, with 1,223,499 residents, 16 percent of whom are Hispanic or Latino in origin and 64 percent of whom are white (U.S. Census Bureau 2002). It encompasses approximately 994 square miles in the middle of the 400-mile-long Central Valley, the state's prime agricultural region. In 1997, 30 percent of the population aged 0 through 4 lived in poverty, and in 1999 an estimated 11,272 children aged 3 to 4 lived in poverty. The number of low-birth-weight infants declined slightly from 1997 to 1999—6.9 to 6.6 percent. Sacramento County's median household income in 2000 was \$42,329, and approximately 27.5 percent of kindergarteners and 18.9 percent of children (grades 1–8) were classified as English learners during the 1999–2000 school year.²⁴

WIC Program Background. Sacramento County has two WIC agencies, but only one (the County Department of Health and Human Services) participates in the pilot. This agency has four clinics. Before the pilot, Sacramento County had two part-time lactation consultants who each worked 17 hours a week on a caseload of 21,000 women, infants, and children. The consultants were overwhelmed with cases and did not have adequate private space in the WIC clinics to deliver services. Except for one clinic that collaborated with the Birth and Beyond Program for a mini-grant through a United Way agency, WIC was not able to provide lactation consultations through home visits. In addition, the consultants delivered training to other WIC staff, including both nutrition assistants and registered dietitians, to teach them about basic breast-feeding skills and to encourage them to refer clients to the lactation consultants whenever possible.

Program History and Objectives. The pilot program seeks to make professional lactation services available through Internationally Board Certified Lactation Consultants (IBCLCs) to reduce the number of mothers who discontinue breast-feeding due to challenges (such as sore nipples) and/or a lack of support. According to the project director, health care professionals often do not have the time or training to understand or appreciate the benefits of breast-feeding, and thus fail to provide mothers with the support that they need to pursue it. In her opinion, nurses are more likely to use formula as the immediate solution to any problems that a new mother encounters when breast-feeding. While Sacramento County had lactation consulting services before the pilot began, WIC had only two part-time IBCLCs for a caseload of more than 20,000 clients. Program staff knew that more should be done to encourage and support breast-feeding among WIC clients.

To fund the pilot, county officials relied on Proposition 10 funding. The California WIC Association encouraged local agencies to develop ways that they could use the revenues in anticipation of a future request for proposal, which eventually was released in 2000. In writing the proposal for Sacramento County, the senior health program coordinator—who would become the project director—conferred with the county's breast-feeding coordinator to gauge the service

²⁴ Unless indicated, all data are taken from the Sacramento County portion of *California Report Card 2001: Factors for School Success*, prepared by Children Now, a California children's advocacy group, November 2001.

needs in the WIC community. The coordinator stressed that increasing the number of professional lactation consultants would be the most effective use of additional resources. Before the pilot, it was difficult for WIC mothers to breast-feed successfully because they lacked a readily available, well-staffed support network. Thus, hiring additional IBCLCs became the core component of the county's grant proposal.

Between 1995 and 2000, the Sacramento WIC program used several peer counselors to offer general support to breast-feeding mothers or pregnant clients who expressed an interest in breast-feeding. However, program officials concluded that peer counselors required too much training and supervision, and that IBCLCs would be a better use of funding. Instead of referring a client to a lactation consultant when appropriate, sometimes a peer counselor tried to address the problem herself, often sharing inaccurate information. According to the project director, if a lactation professional is not available, it can be discouraging for clients and "set some of them up for failure." By the time the pilot began, most counselors had left WIC through attrition. The only peer counselor remaining travels to different clinics as needed to translate when a lactation consultant who does not speak Spanish has a Spanish-speaking client.

Program officials note that because it is easier to recruit bilingual counselors as opposed to IBCLCs, peer counselors serve as a critical link to Spanish-speaking clients. Furthermore, they can assume responsibility for tracking pumps, making follow-up telephone calls, and communicating with the rest of the clinic's staff, which grants the lactation consultants more time to provide technical assistance. The project director noted that, in an ideal world, there would be as many peer counselors as languages spoken among clients who need breast-feeding services.

Target Population. Program officials target services to WIC mothers within 10 days of the birth, the critical period when breast-feeding relationships are established. However, technical assistance is available at *any* time while a mother is breast-feeding. Participants in the Birth and Beyond program and those who receive assistance from Public Health Nursing Services through the county are also eligible.²⁵ Assistance from Public Health Nursing Services is available to parents of medically high-risk infants, such as premature and low-birth-weight infants. In addition, the pilot includes educating Birth and Beyond staff, Public Health Nursing Services nurses, and community doctors and nurses about the importance of breast-feeding so that mothers receive the critical support they need.

²⁵ Birth and Beyond is a multidisciplinary home visitation program for families who have a pregnant woman or an infant with one or more specific factors, such as substance abuse, that put them at an increased risk of child abuse. It provides family support services to pregnant women and families with new babies up through three months of age, though families may continue to participate until their youngest child reaches age five. The program's goals are to help build strong families, meet the needs of developing infants, and ensure that every baby in the county receives medical care. Priority is given to teen mothers and single parents. There are nine Birth and Beyond sites in Sacramento County. A multidisciplinary team staffs each location, which houses a family resource center.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. The pilot has expanded lactation technical assistance in Sacramento County to reduce the number of women who discontinue breast-feeding. Instead of two part-time IBCLCs, all four participating clinics have consultants available 40 hours each week. One outlying clinic—with the smallest caseload—provides an IBCLC two or three days a week.²⁶ The Spanish-speaking peer counselor is available to translate at all clinics.

WIC clients can receive consultations from IBCLCs either in the clinics or at home. Three of the four clinics have private offices for one-on-one consultations, which typically last one hour; home visits last between one and two hours. To receive a home visit, WIC participants must enroll in the Birth and Beyond Program. In addition, there is a breast-feeding helpline answered by a recording, with messages returned by an IBCLC during regular office hours on the same or the next business day. Messages left after hours are returned the next business day, although messages that indicate a breast-feeding crisis late in the day on Friday or over the weekend are returned during the weekend.

The grant also paid for neonatal scales to measure how much breast milk infants consume, along with nursing bras. WIC staff do not distribute the bras as incentives, but rather as medical aids to help prevent breast infections. Frequently, clients who cannot afford to replace their ill-fitting under-wire bras are at a greater risk of developing plugged ducts that can lead to breast infection.

Occasionally, lactation consultants work with a client in the hospital, if the infant is sick and the mother needs support. Most of their work with the Birth and Beyond program occurs through home visits. An IBCLC accompanies a Birth and Beyond staff member on the first visit and can elect to conduct any follow-up visits by herself.

Participation. Only one of the two WIC agencies in Sacramento County participates in the enhanced lactation consultant services pilot. That agency's total monthly caseload is 21,000, of which women make up 25 percent, infants make up 25 percent, and children aged 1 to 4 make up 50 percent; the other agency has 12,000 clients. While the pilot is geared primarily toward WIC clients, women who are enrolled in the Birth and Beyond program or receive assistance from Public Health Nursing Services also have access to the lactation consultants (some women may be enrolled in multiple programs). Each month there are 5,000 births—25 percent of all births in Sacramento County—to mothers who participate in at least one of these three services (Sacramento County Public Health Advisory Board 2001).

In March 2003, there was a total of 900 contacts through WIC lactation consultants. Of these, 504 were telephone contacts, 204 were breast-feeding class contacts, 141 were individual clinic consultation sessions, 46 were home visits, and 4 were referrals from Public Health

²⁶ If a mother at this outlying clinic needs immediate assistance, she can speak to one of the other lactation consultants. If she is willing to travel, she can get an appointment at one of the other sites by the next business day. A lactation consultant may be available on the schedule to make a home visit.

Nursing Services. These figures do not include contacts with the Spanish-speaking peer counselor—82 breast-feeding class contacts, 69 telephone contacts, 20 individual clinic sessions, and two Birth and Beyond Home visits. In April 2003, the project director observed that the demand for lactation consultants had “really skyrocketed.” The IBCLCs were not overwhelmed in April of 2003, but their caseloads have since reached a saturation point. According to the WIC program director, they have a need for 1 or 2 more lactation consultants and another bilingual peer counselor. An estimated 5 percent of total pilot participants who receive services are not enrolled in WIC.

Coordination and Collaboration. According to the breast-feeding promotion coordinator, the WIC program has developed good relationships with community organizations and agencies over the years. She noted that Birth and Beyond is an excellent collaborative partner. Since the pilot began, lactation assistance has become an integral part of the home visits through the Birth and Beyond program. The coordinator serves on its steering committee and attends its stakeholder meetings. The two programs share breast-feeding data and success stories, and consultants often attend trainings sponsored by Birth and Beyond, such as one on mandated reporting for child abuse.

In addition, the pilot enhances the overall collaboration between WIC, Birth and Beyond, and Public Health Nursing Services by making the lactation consultants a key part of the multidisciplinary team that becomes active during the prenatal period for any given client.²⁷ The team includes drug and alcohol counselors, social workers from Child Protective Services, child development specialists, Medi-Cal staff, Birth and Beyond home visitors and team leaders, and WIC lactation consultants. A different team serves each Birth and Beyond site and meets weekly to discuss specific cases and issues. Teams intervene with any client enrolled in Birth and Beyond, regardless of whether that client is on WIC. While the lactation consultants offer breast-feeding technical assistance, nurses visit the family to ensure that growth and development is progressing and that the family is receiving adequate medical care.

Publicity and Outreach Efforts. WIC clients and other eligible women learn about the lactation consulting services from within WIC and from outside organizations.²⁸ WIC staff inform their clients about the breast-feeding helpline when they enroll, and staff also refer clients who disclose problems with breast-feeding during their nutrition contact. If a lactation consultant is available, she can meet with the client immediately. Otherwise, the nutritionist delivers a message to the consultant, who then calls the client at home and counsels over the phone or schedules a clinic appointment. Staff also contact the lactation consultant if a client is

²⁷ These teams fall under the oversight of the county Department of Health and Human Services.

²⁸ The WIC office conducted a survey with the University of California at Davis for a time utilization report. Of a sample of 316 clients who had received lactation consultation during six weeks in September and October 2002, 42 percent were self-referred (after receiving information from WIC counselors, prenatal classes), 28 percent were referred by WIC staff, 12 percent were referred from Birth and Beyond, 10 percent were contacted directly by a lactation consultant, and 7 percent were referred from community health care providers.

considering breast-feeding but is skeptical. The consultant will in turn call the client to discuss the decision. WIC staff inform clients about the enhanced lactation consultant services during breast-feeding classes, and the IBCLCs occasionally teach a prenatal or postpartum class.

Moreover, a lactation consultant tries to call all pregnant women enrolled in WIC to introduce herself, explain the support services that are available, and ask if they intend to breast-feed. This contact establishes a relationship between client and consultant, building a foundation of trust that can encourage the mother to consider breast milk carefully as an alternative to formula.

Apart from WIC, the pilot works to build the community's capacity to support breast-feeding by working with as many health staff as possible to increase their awareness of available resources and services to support breast-feeding mothers in Sacramento County. For example, private lactation consultants who work in local hospitals routinely refer patients to WIC for breast-feeding support. ALTA, the regional professional organization for IBCLCs, often sponsors booths at community events and distributes information about WIC's lactation consulting services.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. Currently, an equivalent of five full-time IBCLCs provide lactation consultations. In addition, a bilingual peer counselor interprets and also provides direct services for Spanish-speaking WIC clients; she is equivalent to a nutrition education assistant in the county's salary rating system.²⁹ She also has responsibilities to support and translate for other WIC staff.

Day-to-day management of the pilot falls under the breast-feeding promotion coordinator (project coordinator), a WIC dietitian who obtained her IBCLC certification after developing an interest in breast-feeding. She oversees the six part-time lactation consultants and the peer counselor. The project coordinator also provides breast-feeding training for WIC staff, breast-feeding training for Birth and Beyond staff and public health nurses, and training to anyone in the community with an interest in learning about breast-feeding and lactation consultants, such as doctors and social workers (see training section below for more details). In addition, she oversees all WIC breast-feeding activities, teaches some classes, and assists with class design.

The pilot consumes nearly 10 percent of the coordinator's schedule. The project director oversees the project coordinator and general coordination of the pilot. She allocated most of her staff time to developing the pilot and securing Proposition 10 funding. Currently, about 5 percent of her schedule is set aside for the pilot.

²⁹ There was a county hiring freeze at that time, and WIC was forced to eliminate one regular staff member (nutrition assistant) to accommodate the inclusion of a Spanish peer counselor for the pilot program.

Training. A training component supplements the services that lactation consultants provide. The project coordinator sent the lactation consultants to a “train-the-trainer” session. The consultants, in turn, train WIC staff, Birth and Beyond home visitor staff, public health nurses, and other community health care providers to enable them to support, refer, and problem-solve directly with mothers of newborns. Public nurse trainings take place approximately monthly, and members of the Birth and Beyond staff are offered sessions about 10 times a year. The project coordinator estimated that at least 130 people from WIC, Birth and Beyond, and Public Health Nursing Services have been trained since the pilot began in June 2002.

For the county’s public health nurses and Birth and Beyond staff, lactation consultants and the breast-feeding coordinator have delivered a three-day training on the basics of breast-feeding and when it is appropriate to refer patients to the lactation consultants. Specific topics include normal infant behavior, feeding cues, the consequences of giving bottles and pacifiers before the mother’s milk is established, sore nipples, insufficient milk supply, and helping mothers develop a back-to-school or back-to-work plan. In addition, once a year there is a follow-up training on “hot topics,” such as how to support a breast-feeding mother whose baby is jaundiced.

WIC staff have received similar breast-feeding trainings. For example, lactation consultants held an in-service day for WIC staff on breast-feeding premature infants. Trainers passed around dolls of varying weights so that WIC staff could compare growth stages. They presented a video tape and placed drops of breast milk in a test tube to illustrate a normal amount for a micro-preemie to drink during one feeding. It is important for WIC staff to share accurate information with their clients so that they are on the same page with the lactation consultants.

Breast-feeding education also extends to the wider community. The program coordinator is involved with the Breastfeeding Coalition for the Greater Sacramento Area. The coalition asked lactation consultants to conduct a one-day training session for a group of doctors and nurses on breast-feeding topics. WIC also collaborated with Pfizer to host a doctors’ dinner, for which the pharmaceutical company covered all costs.³⁰ WIC invited speakers from across the country, including a well-known neonatalist and expert on breast milk. Representatives from Pfizer were pleasantly surprised that 48 out of 50 slots were filled, an unusually high turnout for such an event, and they hope to host the doctors’ dinner annually.

Funding. The pilot provides \$500,000 annually for three years from Proposition 10 tax revenues. To receive such a large amount of outside funding for a WIC project is unusual. In the project director’s opinion, a WIC agency cannot provide adequate breast-feeding assistance unless it also receives outside funding to supplement its regular budget.

It is too soon for program officials to determine whether the enhanced lactation consultant services will extend beyond the pilot period. California is facing a severe budget shortfall, and the project director remarked that the county is proposing to relinquish its WIC contract back to the state, which would in turn contract for WIC services with a nonprofit agency.

³⁰ WIC selected Pfizer because of an ethics clause stating that it can collaborate only with drug companies that do not produce baby formula.

The project coordinator is working on a project proposal that would enable her WIC agency to expand its lactation consultant services even further and link the IBCLCs more closely with peer counselors, perhaps “working in teams of two like a doctor and nurse.” The project would also fund one additional Spanish-speaking peer counselor to work in the outlying clinics.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. An indicator of success for the pilot has been higher breast-feeding rates. In the first nine months of the pilot, breast-feeding rates increased as follows:

	8 weeks	5 to 6 months	11 months
June 2002	46.6%	30.4%	24.3%
February 2003	50.7%	34.3%	25.6%

The project director thinks that the home visits can make a significant difference in raising breast-feeding rates. Many mothers find it difficult to transport their infants to the WIC clinic. Home visits are much more convenient for the mother and baby.

Lactation consultants distribute surveys to health care professionals three months after training to determine to what extent the professionals have altered their service delivery because of the breast-feeding training. Further, the project coordinator and the lactation consultants also have collected questionnaires after some of the training sessions. Another outcome indicator is the number of professionals and paraprofessionals who have received breast-feeding education.³¹

Since the pilot began, the project coordinator, each quarter, calls to get feedback from approximately 25 clients who met with lactation consultants. Responses are “glowing” and “there has not been one complaint.” Many WIC mothers have told the coordinator that they would not have been able to breast-feed without lactation consultant services in place. Learning how to hold a baby during feeding and how to latch on properly are common responses when she asks what information from the lactation consultants was most helpful.

The pilot seems to have had a significant impact on regular WIC staff. Before the pilot, staff were “timid” in promoting breast-feeding. Since limited lactation consultant services were available, staff were reluctant to encourage WIC mothers to breast-feed, because they did not have the technical knowledge to address problems that emerged if the lactation consultant was not available.³² Before the pilot, WIC staff often struggled with questions like “Should I give

³¹ In addition, the Proposition 10 Committee is coordinating a formal evaluation, which will be conducted by a local private company at the end of the pilot.

³² In the outlying clinic, an IBCLC came on site only 4 hours each week.

this mother formula or not?” However, since enhanced lactation consultant services began, WIC staff actively promote breast-feeding, because there are professionals who can provide the necessary information and support when needed. Now, a lactation consultant can determine whether, for example, it would be appropriate to supplement with formula, lend out an electric pump, and see the mother for a lactation consultation. WIC staff are grateful that they no longer have to make tough decisions that they are not qualified to make.

Because of the training received by regular WIC staff, the staff has an enhanced sense of knowing what to say to their clients about breast-feeding, they are more likely to refer clients to the helpline and lactation consultants, and they are more aware of the health risks of using formula. According to the project director, WIC employees chose this profession because they enjoy helping people. Anything that enables them to do their job better—like receiving breast-feeding training—gives them self-esteem and gratification. The breast-feeding training, which is mandatory, is integral to the total training plan for all new and ongoing WIC staff.

Finally, one success of the pilot is the infants the IBCLCs save. Consultants are frequently the first people to see the mother after delivery and before her first postpartum doctor’s appointment. They may visit a WIC client at home two or three days after delivery and conclude that the infant is sick and needs immediate medical care. The lactation consultant contacts the doctor’s office to make an expedited appointment or helps transport the mother to the hospital. In 2003, there were three infants who were hospitalized the same day as the home visit. The breast-feeding coordinator noted that the babies could have died if they had not received immediate medical attention.

Key Challenges. Program staff encountered several challenges, both during the planning phase and during implementation. The project director encountered difficulties in obtaining approval from county officials for contracts for the IBCLCs. Ideally, she would have preferred to designate the consultants as regular county employees with full benefits, but officials were reluctant to grant a special job classification. Moreover, they insisted that the lactation consultants each purchase a \$1 million liability insurance policy.

In addition, the receipt of the Proposition 10 dollars was delayed. Although the First 5 Sacramento Commission³³ approved funding quickly, it took the Sacramento County Board of Supervisors almost a year to transfer the funding to the WIC program. The project director observed that the county can sometimes be resistant to procedural changes, and also is concerned about the possibility of legal challenges initiated by employee unions and the community at large that may arise from contracting out services. As a result of a lawsuit filed several years ago, the county cannot contract out for a service unless it can be demonstrated that county employees cannot provide it.

³³ The First 5 Sacramento Commission is a quasi-county agency with political independence from the Board of Supervisors. It is responsible for distributing Proposition 10 funds. Members of the Commission include a member of the County Board of Supervisors, the Chief of the County Public Protection Agency, the Chief of the County Department of Health and Human Services, and a representative from a local school district. Each California county has such a commission.

Another challenge is that some WIC staff have been resistant to referring clients to the IBCLCs, especially those who used formula for their children. They may have feelings of guilt and resist the information that lactation consultants share. It is common for them to think, “If formula was good enough for my baby, it is fine for my clients.” Part of the training that the project coordinator developed distinguishes between guilt and regret. It is hoped that staff can embrace the latter so that they can “provide breast-feeding education with conviction” to their clients. Unfortunately, the project director thinks that some WIC staff members will “never be on the breast-feeding bandwagon.” Consequently, lactation consultants need to encourage those enthusiastic staff members who are committed to promoting breast-feeding.

Space for the consultants was another hurdle for the pilot. In some cases, clinics had extra space to offer the lactation consultant, and in others they had to “battle” for a private office. In the smallest clinic, the consultant must work in whatever space is available that day.

Though the pilot has augmented collaboration with other organizations and health professionals to promote breast-feeding, WIC still encountered challenges with community partners. Birth and Beyond staff were at the start not referring clients to lactation consultants. In the project coordinator’s opinion, Birth and Beyond home visitors thought that clients did not need help, when in fact clients needed the professional guidance of IBCLCs to breast-feed successfully. Birth and Beyond home visitation staff “were taking matters into their own hands” because they can be “protective of their clients’ families.” Eventually, WIC had to work with managers at Birth and Beyond to mandate that line staff refer all pregnant and postpartum mothers to lactation consultants, who would in turn determine whether they needed to make a home visit. The process now works very well.³⁴

Similarly, the project director continues to be frustrated by the fact that not all stakeholders are on board with breast-feeding promotion and lactation assistance. In her opinion, some health care professionals are “fine with formula.” Nurses and doctors use formula as the “quick answer,” neglecting to try to determine exactly what might be causing the difficulty with breast-feeding. It is also difficult to get the general public to recognize the value of breast-feeding. In conjunction with this pilot, the project coordinator teaches a class to WIC and Birth and Beyond staff on the marketing strategies of formula companies. She discusses the marketing techniques of formula companies, the difference between guilt and regret for women who did not breast-feed, and the health risks of using formula. The latter topic is what usually “raises people’s eyebrows.” They are surprised that formula can (according to WIC staff) increase the risk of diabetes, cancer, obesity, and ear infections.

³⁴ The project coordinator told a story about a mother who had lost three children to Child Protective Services. The Birth and Beyond home visitor was certain that this mother would fail at breast-feeding, but in fact she thrived under the guidance of the lactation consultant, pleasantly surprising the home visitor. Accomplishments like this are slowly overcoming the prejudices against lactation consultants (that is, the belief that lactation consultants are not needed). Having a policy in place that would allow the lactation consultants to be “seen in action” and to be seen as an asset to the Birth and Beyond program has helped.

Lessons Learned. Having an IBCLC who is available for private counseling sessions throughout the week and for home visits is sometimes the critical factor in successful breast-feeding. A survey conducted in a neighboring county asked 145 WIC mothers who had stopped breast-feeding, “What would have helped you to continue breast-feeding?” It found that 65 percent selected the option of “having a staff member provide assistance in their homes.” Program officials think that the pilot could be replicated, and that including home visits is an important component of any successful program. In fact, they would like to expand the program by adding lactation consultants for the other WIC agency and hiring more peer counselors so that they can work formally in teams.

Another key element for replication is outside funding sources. The project director noted that there would not have been enough funding in the general WIC budget to provide the right number of lactation consultants needed to support eligible breast-feeding mothers adequately in Sacramento. Before the pilot, two part-time lactation consultants paid for with WIC dollars were unable to meet service needs fully. Obtaining outside funding through Proposition 10 has been critical to expanding these services.

Program officials have realized that there is still resistance to breast-feeding from different stakeholders. They imagine that some professionals and paraprofessionals—whether they be doctors, nurses, or WIC staff—will never be “won over.” At this point, WIC “just tries to win them over one by one.” The project director hopes that the pilot, particularly by training community health care providers, can begin to change attitudes about breast-feeding. WIC staff encounter many clients who think that breast-feeding is a “nice idea” but is only for “the fortunate few”: stay-at-home mothers. Moreover, some people attach a stigma to breast-feeding in public, which may dissuade some clients from electing this instead of formula. Ideally, WIC officials want breast-feeding to be perceived by the general public as the norm, and as an appropriate practice for women of all socioeconomic levels.

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BREAST-FEEDING PROMOTION AND SUPPORT PROGRAM³⁵
MIAMI-DADE COUNTY, FLORIDA

OVERVIEW

Location: Miami-Dade County, Florida

Start Date: Selected services began in 1997³⁶

Target Population: Current and potential WIC clients, along with health care professionals.

Purpose: To increase breast-feeding rates among WIC clients and to help them breast-feed successfully.

Services: Multifaceted services, including a breast-feeding helpline, lactation consultant services, peer counselors, a breast pump loan program, breast-feeding support groups, and baby showers.

Funding: \$400,875 for fiscal year (FY) 2002, which represents 14 percent of the total WIC budget.

Why Program Was Chosen: The Miami-Dade County Breastfeeding Promotion and Supportive Program (BPSP) is a comprehensive program that includes a community outreach component with technical assistance for local health care professionals as needed.

Key Challenges: Most obstacles have been related to peer counselor and staff recruitment and retention. First, program officials were unsure of the best way to recruit volunteers for the peer counselor program. Moreover, retention has been an ongoing issue. Because a small number of volunteers eventually moved into paid positions, many other volunteers left the program because they were unwilling to continue counseling services without compensation. In addition, low salaries for lactation consultants make it difficult to recruit and retain them, as many are attracted to higher-paying positions in private hospitals and clinics.

³⁵ Telephone interview, April 8, 2003.

³⁶ Different program components had different start dates—breast-feeding helpline, lactation consultant services, and breast pump program (September 1997); peer counselor program (May 1998); and community outreach (October 1999).

BACKGROUND

County Characteristics. Miami-Dade County is one of the most densely populated regions in Florida, with 2,289,683 inhabitants in 2001. Approximately 6.5 percent of the population are children under five. The majority (57.3 percent) of county residents classify themselves as Hispanic or Latino in origin, which is significantly higher than the state average of 16.8 percent. Almost 68 percent of households speak a language other than English at home, as compared to 23.1 percent statewide. In 1999, 18 percent of the county lived below the poverty line, and the median household income was \$35,966.

WIC Program Background. The Miami-Dade County WIC program has the third-largest local WIC agency in the country in terms of the numbers of participants and has the largest staff of all Florida WIC agencies. There are 23 clinics in the Miami-Dade County service area, as well as an administrative office and a central appointment office. The WIC program has 55,000-60,000 enrolled participants per month, including infants and young children; about 11,000-12,000 are pregnant and breast-feeding women.³⁷

Until the BPSP began in 1997, the only breast-feeding promotion and services for WIC clients included breast-feeding classes taught by WIC nutritionists. Moreover, all women had received formula for their infants regardless of their breast-feeding patterns and preferences. The breast-feeding program administrator noted that most staff assumed clients would “feel like they were not getting something free if they did not receive formula.”

Program History and Objectives. Soon after starting her position in July 1997, the breast-feeding program administrator concluded that the county WIC clinics were falling short of what they could be doing to encourage and support clients to breast-feed. Consequently, with help from her staff, she developed a comprehensive set of support services for clients. By the late nineties, the Miami-Dade County BPSP had become a multifaceted program that sought (1) to assist WIC clients from pregnancy through year one postpartum with breast-feeding issues, and (2) to promote the WIC program as a source of breast-feeding assistance to doctors’ offices, hospitals, community organizations, and third-party insurers.

The program administrator decided to implement a breast-feeding helpline first, because it was easiest to establish. Within a few months, the WIC program began a breast pump loan program and lactation consultant services to further support clients in their efforts to breast-feed. In 1998, the administrator launched a peer counselor program, as the demand for breast-feeding support services—specifically culturally appropriate support—exceeded what the regular WIC staff could provide. Peer counselors would be more representative of the client population in terms of ethnicity and languages spoken, thus enabling WIC to offer effective breast-feeding support to a more diverse client base.

Finally, the breast-feeding program administrator decided to incorporate community outreach into the BPSP’s mission. She targeted local hospitals, health care professionals, and

³⁷ Based on participation data supplied by the Miami-Dade County WIC program, December 3, 2003, covering the period October 2002 to October 2003.

third-party insurers to receive information on WIC's breast-feeding support services. In her opinion, a fundamental goal of community outreach is to "change the image of WIC," educate community stakeholders about WIC services, and encourage them to refer pregnant and postpartum women to lactation consultants and peer counselors. Specifically, the WIC program is shifting away from "where the formula is" to "WIC makes breast-feeding easy." In fact, the latter statement has been incorporated into the program logo, and all hospital and outreach personnel wear uniforms with this slogan on the front.

Target Population. WIC participants enrolled in a county WIC clinic are eligible for breast-feeding support services. Staff who work in the hospitals target low to moderate-income pregnant and postpartum women who are potentially eligible for WIC services in addition to current WIC clients. The BPSP also reaches out to community health care workers and other stakeholders to educate them about the benefits of breast-feeding and lactation support services available through WIC.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. WIC promotes breast-feeding education for pregnant and postpartum women through individual breast-feeding consultations with board-certified lactation consultants, peer counselors, breast-feeding support groups, a breast-feeding helpline, a breast pump loan program, and baby showers.

All 23 county clinics have a lactation consultant available, although at 7 of them, the Internationally Board Certified Lactation Consultant (IBCLC) comes in only once a week. Clients have access to individual lactation consultations, which typically last an hour but could be as long as two or three hours, depending on the mother's need. Sometimes WIC participants must wait one business day to see a consultant, and occasionally they must wait a few days, but they can often be seen within 24 hours. Clients always access the lactation consultants through the helpline. Common issues include (1) sore nipples that last more than 24 hours, (2) first attempt at breast-feeding a premature infant, (3) breast milk supply issues, (4) breast surgery, (5) cleft palate and/or lip, (6) metabolic disorders, (7) inverted nipples, (8) latch-on problems, and (9) concerns about the infant's weight gain.

Volunteer peer counselors supplement the support offered by lactation consultants. Volunteer peer counselors are available to assist primarily via telephone, while paid peer counselors (also known as outreach workers) work in hospital maternity wards promoting WIC and breast-feeding. Sometimes, they rotate to different clinics to assist with outreach events like health fairs. Currently, there are about 10 active volunteer peer counselors, and they volunteer no more than 5 hours a week. However, by December 2003, an additional 15 volunteer peer counselors will be trained and available.

The breast-feeding helpline is answered weekdays from 7 A.M. to 4 P.M. by two WIC staff members, one of whom is an IBCLC. An answering machine operates in the evenings and on weekends; messages are checked once during weekday evenings and twice a day over weekends. The helpline is not exclusively for WIC clients. Doctors and nurses frequently call the helpline if they have a question or concern about a breast-feeding patient or a patient who is interested in

breast-feeding. Program staff do *not* ask health care professionals if the question pertains to a WIC client. They simply answer any breast-feeding questions that they receive, which typically are on medication or specific diseases as they relate to breast-feeding. Approximately 800 women receive assistance through the helpline each month.

A breast pump loan program is another component of the BPSP. Staff distribute electric pumps only to mothers who have premature or sick infants, or who face long-term separation from their infants. Recipients of electric pumps must be breast-feeding full-time (except for mothers of premature or sick infants) and cannot receive formula through WIC. Program staff are more liberal with mini breast pumps and usually distribute them to mothers of older babies (4 to 6 months old) who work or attend school. Staff lend manual pumps to anyone who requests one, except that pumps are not given to mothers who complain about sore nipples or who do not want to put the baby to the breast. In these cases, someone from the WIC breast-feeding staff will first counsel the mother and see if there is an alternate solution. Frequently, mothers must wait for electric pumps, but usually only for a few days. Women who request manual pumps tend to wait two days or so, because pumps are delivered through interoffice mail or regular mail from a central office. In addition, the Miami-Dade County WIC program will soon start a pilot electric pump program for working mothers, who will receive a free pump upon agreeing to complete a survey at 3, 6, and 12 months on the pump's usefulness, degree of breast-feeding success, and overall satisfaction.

In addition, WIC sponsors breast-feeding support groups, two in English and two in Spanish. Classes are held monthly at a local clinic and are led by one of the paid peer counselors. The program also sponsors baby showers for breast-feeding mothers every two months at two centrally located clinics. Showers provide games, gifts, distribution of food vouchers, and discussions about creative recipes that clients can try with WIC food. Gifts items, all of which are donated by various community organizations and businesses, include baby bouncy seats, diapers, and portable snack containers.

Participation. During FY 2002, the program served 9,568 women through the helpline, lent 246 double pumps, and conducted 728 individual lactation consults. The breast-feeding program administrator thinks that the Spanish support group is more successful and better attended than the English one because "Latin women really appreciate the support." One Spanish support group held a birthday party for their babies and discussed the benefits of breast-feeding—all four of them had been breast-feeding for at least one year.

Coordination and Collaboration. The WIC program has incorporated community outreach into its breast-feeding promotion efforts, particularly outreach to local doctors and nurses. Staff believe that building relationships with these health care providers through education can only benefit those WIC clients served by these doctors and nurses.³⁸

³⁸ WIC staff used to conduct new-employee education sessions on breast-feeding for the Healthy Start program in Miami-Dade County. (Healthy Start is a Medicaid expansion program that provides free health insurance coverage to eligible pregnant women.) However, limited time and staff resources led them to stop doing this training.

Publicity and Outreach Efforts. Clients hear about the breast-feeding services from WIC staff, posters in the clinics, referrals, and outside agencies, as well as a breast-feeding helpline sticker on each WIC identification card. The sticker seems to be a very effective way to encourage women to access the support services. According to the breast-feeding program administrator, this tool is a “staple that they could not do without.” WIC receives referrals from hospitals, doctors, the La Leche League, and Healthy Start; it has a very good relationship with Healthy Start and receives many referrals from them.

Outreach staff conduct community outreach in various ways, both for clients outside the clinic and for health care professionals. Currently, staff members rotate to six local hospitals each week, and counselors are in any given hospital for 4 to 8 hours. They talk about breast-feeding services available through the WIC program to *all* patients, room to room, on the maternity ward. They distribute WIC applications and ask patients if they have any questions or would like more information on breast-feeding. Outreach staff also sponsor booths at health fairs and work closely with a local baby supply and clothing store, teaching classes for their customers and attending their baby fairs monthly or every other month to distribute information. Moreover, staff have presented at dinners insurance companies have sponsored for physicians, explaining current services available through WIC, with an emphasis on breast-feeding support. Three dinners have been held so far, with 10 to 20 physicians attending each event.

WIC breast-feeding staff have been planning to conduct outreach to physicians’ offices. Because staff is limited, however, they have hosted only a few sessions.³⁹ Generally, a WIC health educator cold-calls an obstetrician/gynecologist to introduce herself, talk briefly about the WIC program, and schedule a session. The educator meets with doctors and nurses at lunchtime to talk about the WIC program, the breast-feeding support services that it offers, and the ways WIC helps mothers succeed at breast-feeding. Visits last about 45 minutes. The educator also explains that WIC staff can help health care professionals with questions about non-WIC patients who breast-feed. She leaves several WIC applications, breast-feeding helpline posters, posters explaining how to enroll in WIC, and general breast-feeding materials for the health care providers. Staff also conduct followup with private doctors’ offices, because they do not want to get community stakeholders enthusiastic about breast-feeding and then “disappear.” Monthly followup typically includes calling someone at the obstetrician/gynecologist’s office to check how things are going.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The WIC breast-feeding program in Miami-Dade County has 12 employees (8 full-time and 4 part-time), although some play dual roles. These include a full-time bilingual telephone helpline operator, a full-time breast pump coordinator, five lactation consultants (three full-time share helpline coverage, and two half-time work only in the clinics), a full-time outreach coordinator, a part-time outreach worker for doctors and nurses,

³⁹ An outreach staff member was hired in November 2003 and will begin to make calls to set up sessions. The program administrator expects that these outreach sessions will become much more routine.

full-time and part-time administrative assistants who coordinate the outreach schedule and perform clerical duties, and the breast-feeding program administrator, who oversees day-to-day operations and policy development. The breast-feeding program administrator noted that 95 percent of her staff started in the peer counseling program, and that peer counselors must have been enrolled at WIC at some point.

Breast-feeding support staff rotate to different clinics each week since there is not enough staff to have a permanent worker at each clinic. Seven large clinics have a lactation consultant who comes in one day each week; the remaining 16 clinics have a consultant available on-site less frequently. Of the lactation consultants, two work almost exclusively in the field (that is, rotate to different clinics), three also operate the telephone helpline, and one also assists with community outreach. Community outreach workers visit venues like hospitals and health fairs, and sometimes teach breast-feeding classes to local health professionals. Volunteer peer counselors are available primarily to assist via telephone—occasionally they will also assist with the helpline—while paid peer counselors work in hospital maternity wards promoting WIC and breast-feeding. Peer counselors also administer pumps and can teach breast-feeding classes at clinics as needed. They also lead the support groups. (WIC nutrition educators are responsible for teaching some breast-feeding classes, but these last only about 10 minutes. Classes taught by breast-feeding staff are an hour long.)

Aside from the administrative assistants and the administrator, official staff titles are either family support worker or health educator. Most lactation consultants have worked their way up from being peer counselors and have earned their IBCLC.⁴⁰

Training. The Miami-Dade County WIC program provides some training opportunities for staff and community stakeholders to augment breast-feeding support services for clients. The program administrator offers a 26-hour training course for peer counselors, which she teaches along with another staff member. They meet once a week for 6 to 8 weeks, and two make-up sessions are permitted. The administrator organizes training schedules around participants' needs, and sometimes classes are offered at night to accommodate participants. Topics include anatomy and physiology of the breast, composition of breast milk, addressing cultural differences, communication skills, time management of breast-feeding, normal course of breast-feeding from infancy through toddlerhood, nutrition and breast-feeding, parenting skills, and general baby care. On average, each session starts with 15 students, and 8 graduate. Although the breast-feeding program administrator used to offer the peer counselor training three or four times each year, she now only offers it twice annually. She estimates that there is a waiting list of about 20 at any given time.

In addition, new health educators or family support workers receive 16 hours of new WIC employee training and a few hours of followup. The breast-feeding program administrator

⁴⁰ The breast-feeding program administrator noted that only staff who conduct individual consultations are required to be certified. However, some peer counselors have obtained their IBCLC because they are “passionate about breast-feeding.” Since the program began, six peer counselors obtained their lactation certification.

conducts all trainings. Initial sessions cover basic breast-feeding management, when to refer clients to specialists, the breast pump program, anatomy and physiology of the breast, breast milk composition, the risks of artificial feeding, and proper positioning and latch-on techniques. Follow-up topics include fun ideas on teaching breast-feeding classes, service updates, and any policy updates.

As a supplemental training for peer counselors, WIC held its first all-day educational conference in 1998. Its purpose was to support, honor, and reinforce the knowledge of the peer counselors. The conference included parenting and breast-feeding panels, which addressed such topics as Teaching Your Client About Money, Motherhood Stress, Living on One Budget, Nutrition, Breast-feeding Basics, Cultural Differences, Choices in Education, Breast Pumps, and Making Breast-feeding Classes Fun. Peer counselors, local private practice nurses, and some WIC employees attended; it was open to health care providers in the community free of charge. The conference was so successful that the Miami-Dade County WIC office decided to host a yearly conference, and there have been educational conferences for the peer counselors and lactation consultants ever since.

Record Keeping. All breast-feeding staff, including peer counselor volunteers, submit monthly reports that indicate their number of (1) classes taught, (2) pumps distributed, (3) people served through individual counseling sessions, and (4) telephone helpline calls made and received. In addition, hospitals submit information on whether patients breast-feed or not, whether patients are enrolled in WIC or not, the number of patients admitted, and the number of times that patients were seen by a doctor or nurse. Client satisfaction surveys are conducted regularly among clients who have received “full” breast-feeding services.⁴¹

Funding. The WIC program allocates 14 percent of its total budget, or \$400,850 annually, for breast-feeding support services. This figure includes staff salaries. For incentive items for the baby showers, the program relies on donations from local companies, including children’s clothing stores, discount stores, caterers, bakeries, and restaurants. Doctors and other professionals have donated their time to speak at special events and conferences.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. The breast-feeding program administrator said that breast-feeding rates have increased by about 10 percent between 1997 and 2003, and have increased each year. She feels that the most important success of the BPSP is that staff have implemented an “all-encompassing, holistic approach,” rather than a “piecemeal” program. The breast-feeding helpline is key in this success, because it informs many participants about other breast-feeding services. It also provides breast-feeding technical assistance to health care professionals. Feedback from client surveys is almost always positive, and they would recommend the BPSP to friends and relatives (see the Lessons Learned section for survey details). Other WIC staff—

⁴¹ “Full” is defined as accessing the telephone helpline and using at least one individual consultation.

non-breast-feeding staff—are pleased that they have somewhere to refer clients who have breast-feeding questions or concerns.

Moreover, the program administrator remarked that there have been some inspirational stories from peer counselors. One homeless woman with three children volunteered as a peer counselor for a year, was hired for the breast-feeding helpline, and eventually earned her IBCLC. After operating it for five years, she passed her IBCLC boards and now works for the Miami-Dade County WIC program as a lactation consultant. The breast-feeding program administrator mentioned that 95 percent of her staff were once peer counselors, and 6 peer counselors have become IBCLCs, of whom 3 work as lactation consultants for the WIC program.

Key Challenges. Several challenges have emerged while these support services have been implemented. At first, they were not sure how to recruit for the peer counselor program. The program administrator obtained a list of WIC clients who had received a breast-feeding food package in the past few years and called them to gauge their interest. Skeptics in the community (local lactation consultants not affiliated with WIC) said that the program would never succeed, since low-income women would not be interested in volunteering. Nonetheless, many women expressed interest and the volunteer peer counseling program thrived. However, they found that volunteers must be routinely reminded to submit their monthly service reports.

More recently, the biggest challenge facing the BPSP has been staff retention. The breast-feeding program administrator does not feel that WIC has the capacity to serve all targeted women in the county who could benefit from breast-feeding services. It is especially difficult to keep volunteers interested in the BPSP now that some peer counselors are paid. When the peer counseling program began in 1998, it was fully staffed by 15 to 20 active volunteer peer counselors. Eventually, however, WIC secured funds to hire four counselors part-time (two full-time equivalents), and this decision changed the climate of the program. Initially, those peer counselors who were not hired no longer wanted to be counselors, and the volunteer program almost “collapsed.” The administrator is currently increasing the number of volunteers through the University of Miami and Jackson Hospital, but is also seeking ways to compensate them.

The breast-feeding program administrator noted also that the low salaries offered make it difficult to fill paid staff positions with people who are passionate about breast-feeding and have the capacity to support mothers. An additional barrier is attrition—lactation consultants are lured away by higher pay at private hospitals. Ideally, she would like to hire an additional 12 lactation consultants so that each clinic would have an IBCLC at a designated time every week.

Lessons Learned. For the breast-feeding program administrator, offering fully comprehensive breast-feeding services to WIC clients in a given service region can be hindered by a limited staff. This is also true particularly of outreach to private medical practices. Ideally, WIC would be able to reach more health care professionals, but her staff is small and the county covers a wide area. Community outreach sessions are time-consuming, each lasting about 45 minutes, not including monthly follow-up phone calls.

Though the community outreach to private medical practices has been slow, the breast-feeding program administrator plans to continue to make it a part of the BPSP’s mission. Ultimately, she hopes to change WIC’s image with health care providers and the wider

community to show that it is a place to get not just free infant formula but also information and technical assistance on breast-feeding and nutrition. The program administrator thinks that a breast-feeding telephone helpline is an easy, effective way to build lactation support services beyond traditional breast-feeding classes, not only to clients but also to community health care providers. She reported that many physicians appreciate the program because costs of breast-feeding support services through the private sector are high, and unaffordable to approximately 30 percent of patients. (Lactation consultations in the private sector are about \$90 and up for the first session, and \$50 for each additional one. To borrow a breast pump, patients pay \$45 per month, and the attachment pieces cost another \$45.)

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C. PROGRAMS FOR HIGH-RISK GROUPS

Besharov and Germanis (2001) suggested that WIC should target more intensive services to groups that are at particularly high risk for adverse health outcomes. This section highlights some targeted breast-feeding support programs that seem useful approaches to serving two (sometimes overlapping) high-risk groups: (1) teenage mothers, and (2) mothers of premature or seriously ill infants.

Two of the three programs—in Arkansas and Hawaii—offer improved access to breast pumps for high-risk groups. Breast pumps are key tools in promoting breast-feeding initiation for mothers with ill or premature infants, or who otherwise must be separated from their infants. They can also be important tools for promoting a longer duration of breast-feeding for mothers returning to work or to school—and returning to school is particularly important for teen mothers. The third program—in the Toledo, Ohio, area—offers prenatal breast-feeding education classes tailored to meet the needs of pregnant teens.

All three of these programs are inexpensive and may save WIC funds over the long term, by reducing costs for special formulas. Furthermore, they may improve the health of these high-risk infants over time.

BREAST PUMPS FOR MOTHERS OF PREMATURE OR SERIOUSLY ILL INFANTS⁴² ARKANSAS

OVERVIEW

Location: Statewide

Start Date: Spring 2000

Target Population: Arkansas WIC mothers of premature or seriously ill infants.

Purpose: To support breast-feeding and meet the breast-feeding needs of all Arkansas WIC mothers with premature or seriously ill infants by offering a low-cost, non-returnable breast pump.

Services: Receipt of free electric breast pumps to keep, expedited WIC appointments to get certified for breast-feeding, and a toll-free number for technical assistance.

Funding: Arkansas allocates WIC food dollars to purchase breast pumps at a bulk price of \$99 each; the pumps account for the majority of program expenses.

Why Program Was Chosen: The program ensures that these high-risk families receive breast pumps quickly, and it appears to save the state money spent on special formulas and tracking loaner pumps. Arkansas may be the only state that sponsors a breast pump program targeting premature infants and seriously ill infants. Facilitating long-distance certifications in a rural state that has just a few, centrally located neonatal intensive care units (NICUs) is also innovative.

Key Challenges: In the planning phase, challenges included developing and justifying the breast pump specifications and completing the state contract. In addition, it has sometimes been difficult for county health units with high caseload volume to expedite service for mothers who need to be certified as breast-feeding in order to receive a pump.

⁴² Telephone interview, April 2, 2003.

BACKGROUND

State Characteristics. The population of Arkansas in 2000 was 2,673,400, 78.6 percent of which were white and not of Hispanic or Latino origin. African Americans made up the largest minority racial group, at 15.7 percent. Most state residents speak English as their first language. In 1999, 15.8 percent of the population lived below the poverty level, and the median household income was \$32,182. In 1997, one-quarter of children⁴³ lived in poverty. An average of 84,153 clients were enrolled in WIC each month during fiscal year (FY) 2002, approximately 3 percent of the total state population (U.S. Department of Agriculture 2003a).

WIC Program Background. The Arkansas WIC program is considered a single WIC agency, operated by the Arkansas Department of Health. The 75 county health departments—or units—serve as the WIC clinics. Most county health units are open Monday through Friday from 8 A.M. to 4:30 P.M. The average monthly caseload for FY 2003 was 85,468: 3,177 breast-feeding women, 12,737 pregnant women, 7,348 postpartum women, 23,784 infants, and 38,422 children. The average monthly breast-feeding rate was 13.3 percent.⁴⁴

WIC offers lactation training for WIC staff and other health professionals, as well as services that promote breast-feeding and support clients who choose to breast-feed. Lactation specialists from the state office in Little Rock administer a toll-free breast-feeding helpline, in operation since 1990 and available weekdays from 8 A.M. to 4:30 P.M. Voicemail is available after regular office hours, on weekends, and during holidays, and calls are returned on the next business day. (The voicemail message includes phone numbers for other resources if immediate assistance is needed.) Mothers and health care professionals can ask questions about breast-feeding problems, medications, and related issues.

In addition to the special initiative described below, the Department of Health offers less expensive breast pumps for mothers returning to work or school (Double Delux Small Electric Pumps, \$45 each through a contractor or \$150 retail), and manual pumps for occasional or short-term pumping, particularly for stay-at-home mothers. A limited number of Lactina electric pumps are available on loan for short-term complications and medical problems. Specialized equipment and supplies, such as breast shields and sizing inserts, are also available.

Program History and Objectives. The Breast Pumps for Mothers of Premature or Seriously Ill Infants (BPMPSI) program was originally launched as a pilot to test the feasibility of providing non-returnable breast pumps (Pump In Style) to mothers of premature infants. Before then, the WIC division at the Department of Health had available for loan 200 reusable Lactina breast pumps, which are widely used in the United States and recommended by many

⁴³ Data are from www.barc.usda.gov/bhnrc/cnrg/state05.htm, accessed September 24, 2003.

⁴⁴ The breast-feeding rate is calculated using a formula required by the Southwest Regional WIC office—the number of breast-feeding WIC clients divided by the number of all infants.

health care professionals. However, demand for breast pumps far exceeded the supply, and mothers with premature infants were often placed on waiting lists.⁴⁵

Not only did health officials fail to meet the demand for breast pumps, tracking and cleaning the reusable Lactina pumps were costly in terms of staff time and lost pumps. Frequently WIC staff encountered disconnected telephone numbers in trying to retrieve the pumps. Lactina pumps, which have a hospital-grade motor, cost \$600 in 2002.

In 1999, the U.S. Department of Agriculture (USDA) passed a regulation allowing WIC food funds to be used to purchase breast pumps. Before this pilot, the WIC program bought pumps with Nutrition Services and Administration (NSA) grants, which limited the number of pumps the program could purchase. With an additional funding stream available, the state WIC director—who was very committed to breast-feeding advocacy—approached the state breast-feeding coordinator and WIC breast-feeding nutrition consultant to explore what could be accomplished if more funding was allocated to breast-feeding initiatives.

After consulting with health care professionals at Little Rock’s four tertiary hospitals that serve most premature infants in the state, the WIC breast-feeding coordinator and WIC breast-feeding nutrition consultant suggested the Pump In Style breast pumps, which were reusable and less expensive.⁴⁶ Because mothers keep the pumps, WIC staff would not have to spend time cleaning or tracking them. Since the state could purchase pumps in greater quantities, it could secure a bulk price from a contractor (in the end, the state paid \$99 versus \$250 retail).

Importantly, WIC staff carefully researched various pump models to develop the specifications, undergoing a thorough study of the pumps on the market that might meet the needs of their clients. For example, it was critical that the breast pump convert from electric to manual to account for losses in electricity due to a delinquent payment of a utility bill or a storm. State officials first approached the pump program as a pilot to test the feasibility of the Pump In Style breast pumps, but since have instituted it as a permanent part of the WIC program because of its success.

Target Population. The Pump In Style breast pumps are available to Arkansas WIC mothers of premature or seriously ill infants. To receive a breast pump, a mother first must be certified as a WIC breast-feeding mother.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. WIC clients who have infants with special needs and are certified as breast-feeding are eligible to receive a free Pump In Style to keep. Some mothers contact the

⁴⁵ County health units, which serve as WIC sites in Arkansas, generally stopped tracking the number of requests for pumps when a waiting list reached 50 clients, which it often did.

⁴⁶ Doctors and nurses were very supportive of the Pump In Style pumps because their private-pay patients had been using them for years and were very pleased.

helpline if they encounter a problem in getting a breast pump from their county health unit, but this rarely occurs.⁴⁷ Each county health unit still has at least one Lactina breast pump that they can lend for a week or two if the need arises. As of April 2003, Arkansas had ordered 2,000 Pump In Style pumps.

In addition, WIC field staff grant mothers of premature or seriously ill infants expedited appointments to become certified for breast-feeding. Moreover, WIC staff located in Little Rock must accommodate clients (of premature or seriously ill infants) who are post C-section or staying at a neonatal intensive care unit, and who have traveled to the capital city and are far from their “home” WIC clinic. These women receive WIC certification as breast-feeding mothers at a WIC clinic near the hospital and receive a pump on the same day. Because Arkansas has a statewide WIC agency and automated system, this long-distance certification was not too hard to implement. When the mother returns home, she goes to her “home” WIC agency to receive vouchers. The agency checks the computer to verify her certification and issues the vouchers. The home agency also calls or e-mails the Little Rock unit to obtain a copy of the record of the mother’s certification visit, which the Little Rock staff send by mail.

Participation. The Arkansas Department of Health originally intended to administer the pumps to premature infants only. Soon, however, program staff learned through surveys of the first pump recipients that local hospitals recognized that mothers of infants with serious medical conditions proved to be excellent candidates for the pump program and referred them as well. Still, most clients have premature infants. In the initial wave of pump recipients, 7 out of 318 infants had serious birth defects that interfered with breast-feeding. Though the babies were not premature, their mothers needed an effective pump for long-term use. The remaining babies had low birth weights.

Coordination and Collaboration. Before the state officially launched the pilot program, the state breast-feeding coordinator and the WIC breast-feeding nutrition consultant delivered brief presentations to postpartum and nursery staff at Little Rock’s hospitals with neonatal intensive care units: three tertiary hospitals and Children’s Hospital. The presentations included a description of the pilot and a demonstration of a Pump In Style pump. According to the state breast-feeding coordinator, staff were “eager and supportive.”

Publicity and Outreach Efforts. WIC clients generally hear about the BPMPSI program through health care professionals and through word of mouth from previous pump recipients. State officials distributed information on the program to all hospitals, clinics, and county health units in the state. The state breast-feeding coordinator also delivered presentations to postpartum and nursery staff at the main hospitals in the Little Rock area with neonatal intensive care units, which included a program overview and a demonstration of a Pump In Style pump. The three tertiary hospitals, along with the city’s Children’s Hospital, serve the majority of premature deliveries in the state and are where many WIC clients learn about the breast pumps. The coordinator observed that word of mouth is an effective and powerful means of marketing the

⁴⁷ Each month, the hotline receives between 60 and 100 calls, of which up to 10 are related specifically to the specialized pumps. Most of these are inquiries about how to obtain a pump.

program. Using breast pumps to feed premature and seriously ill infants is a “novel” concept that “makes a splash” with health providers and mothers interested in breast-feeding.

By the spring of 2002, all WIC sites and hospitals statewide were familiar with the breast pumps for children with special needs. The state breast-feeding coordinator reported that health care professionals in all parts of the state inform new hospital staff about the BPMPSI initiative during their employee orientations, to ensure that the new staff inform interested mothers about the pump program. In addition, county health units, clinics, and hospitals display program brochures in waiting rooms, and the Department of Health posts information on its Website.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The state breast-feeding coordinator and the WIC breast-feeding nutrition consultant developed and administer the BPMPSI program at the state level. They also are responsible for educating the statewide health care community about this new resource for WIC mothers. During the planning and development phase, the state WIC director provided counsel as needed and approved the final state contract with a pump manufacturer. A computer programmer from the Department of Health designed a database and entered results from a survey of initial recipients of the Pump In Style pumps, and two part-time state WIC staff members monitored those who responded to the survey to collect data on breast-feeding and using the breast pumps. (See the evaluation section for a description of the survey.)

Program officials completed the contract with the manufacturer, distributed the first round of pumps to county health units, and developed a database for tracking outcomes, but, after these tasks were completed, little state staff time has been needed for the pump program. The state breast-feeding coordinator and the WIC breast-feeding nutrition consultant respond to occasional calls on the toll-free breast-feeding hotline, and they deliver short presentations on the program from time to time at health and nutrition workshops.

Funding. Most funding is used to purchase Pump In Style pumps; very little is allocated to staff time or outreach. WIC uses food dollars for these breast pumps and does not receive any outside funding. For its first contract, the state purchased 1,000 pumps for \$99 each, and the supply lasted about two years. An additional 1,000 have been ordered, some of which remain in the central supply warehouse in Little Rock, while others are stored at the county health units for immediate distribution. Breast pump expenditures for FY 2001 were \$90,490, which represented less than 1 percent of its annual WIC food funds. In FY 2002, the state spent about 1 percent of its annual food funding, or \$216,465. Because the state WIC director is a breast-feeding advocate and has prioritized this project, the pump program should continue as long as there is available federal funding.

ASSESSMENT AND LESSONS LEARNED

Evaluation and Outcomes. State WIC officials used a written survey and follow-up telephone calls to gauge initial client experiences with the Pump In Style breast pumps. After the pumps arrived from the manufacturer, program staff inserted a survey into approximately 500 pumps and sent one pump to each county health unit in Arkansas. In order for health units

to receive additional breast pumps, officials required that the initial pump recipients complete the short survey that collected preliminary information for the phone survey, which local staff returned via fax. This approach ensured that the state office would receive immediate feedback, establishing a quality control mechanism that would reveal any design flaws that would require that the pumps be returned to the manufacturer. State officials received a total of 283 completed surveys. Data from the surveys included infants from 35 participating hospitals.

As a second monitoring component, two part-time state WIC employees called survey-completing mothers each month for as long as the mothers continued to pump breast milk. The follow-up calls included questions on product satisfaction, satisfaction with milk production, and breast-feeding duration rates. Most clients liked the Pump In Style pumps, noting that they were easy to use and produced adequate amounts of milk. Reasons for dissatisfaction among some mothers included (1) slow speed of the pump; (2) inadequate milk production; and (3) pain. The shortest breast-feeding duration was 4 weeks, and the longest was 83 weeks.

Implementation Successes. As a result of the BPMPSI program, the state no longer maintains waiting lists for breast pumps for mothers with premature or seriously ill infants. The

RESPONSES TO TELEPHONE FOLLOW-UP OF MOTHERS
USING THE PUMP (PILOT PHASE)

	Number of Responses
<hr/>	
Satisfaction with the WIC Pump	
Very satisfied	520 ^a
Somewhat satisfied	45
Not satisfied	12
Satisfaction with the Amount of Milk Collected	
Very satisfied	337
Somewhat satisfied	155
Not satisfied	84
Was the Pump Helpful?	
Essential to the health of my baby	332
Helpful	212
Somewhat helpful	23
Not helpful	7
<hr/>	

^aTotal responses for a particular question exceed 283—the total number of clients who received follow-up phone calls—because staff asked the same questions from month to month and aggregated the data. Therefore, we cannot determine how responses changed, if at all, over time.

initiative ensures that mothers can receive a Pump In Style pump within a few days of delivery. Receiving a pump in a timely manner is crucial to initiating breast-feeding, since mothers may be more reluctant to begin once they have used formula.

Based on the survey distributed to initial program participants, WIC clients have been very thankful for being able to provide breast milk to their premature or seriously ill infants. According to the state breast-feeding coordinator, mothers “love” using the Pump In Style model because it is easy to use and “anyone could pick it up and figure out how to use it without reading any instructions.”⁴⁸ When asked if the breast pump made it possible for them to provide breast milk for their infants, clients overwhelmingly responded “yes.”

Program officials reported that physicians and hospital staff have expressed a renewed appreciation for the WIC program because they understand how it helps infants with special needs gain access to breast milk. Moreover, WIC field staff feel empowered and relieved by being able to meet the clients’ needs, instead of placing them on a waiting list for pumps. Because the Pump In Style pumps are non-returnable, staff no longer spend time cleaning breast pumps and can focus on other services. In addition, the pilot part of the study suggested that fewer infants were prescribed expensive special formulas, which saved money.

Key Challenges. Very few implementation challenges have been associated with the program. State program officials noted that the main hurdle during the planning phase was developing and justifying the pump specifications—such as ensuring that the pump could switch to manual mode in case of power outage—and finalizing the state contract. Arkansas officials cautioned that other states might not be able to use the Pump In Style if it is not approved for a state contract. They noted, however, that similar breast pumps might work just as well.

In addition, the state breast-feeding coordinator observed that, for a few county health units with a heavy client flow, it has been difficult at times for WIC staff to expedite cases for mothers who need to be certified as breast-feeding in order to receive a pump. While it is challenging to juggle this immediate demand along with their regular caseloads, staff manage because they understand that the BPMPSI program meets a critical need for these families. Since appointment “show rates” are rarely 100 percent—especially for appointment slots early in the day—it is generally not a problem to incorporate an urgent case into the schedule.

Lessons Learned. Program officials reported that a key element of the program’s success has been the support of hospital staff, particularly at Children’s Hospital in Little Rock, who serve as a primary source of referrals for the specialized pumps. Consequently, an agency implementing a similar program should know it is important to conduct outreach to area hospitals and health care professionals as early as possible to educate them about the breast pump program and encourage them to refer to WIC mothers who deliver premature or have seriously ill infants. If the hospitals in Little Rock were not so in favor of breast-feeding and did

⁴⁸ The survey of initial recipients revealed that only 1 of 283 clients had trouble assembling the pump, and only a few experienced difficulty using it.

not have a history of collaborating with WIC, it may have required considerably more advocacy and education of health care professionals on the part of state officials.

The state breast-feeding coordinator noted that any state could implement a pump program for mothers with premature or seriously ill infants, provided that funding was available to purchase enough pumps. A significant factor that could influence replication is the degree to which a state WIC director supports breast-feeding and is willing to allocate food dollars for a specialized pump program. In Arkansas's experience, NSA dollars alone were not sufficient to eliminate waiting lists.

For mothers who are away from home because their infants are in an NICU on an emergency basis, a program to certify them so that they can receive a pump may be of interest to other states. The statewide WIC agency in Arkansas is unusual, so other states would have to consider the feasibility of implementing such procedures.

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PUMPS IN THE SCHOOLS (PITS)⁴⁹
HAWAII

OVERVIEW

Location: Piloted in two high schools on the island of Oahu; the program is now operating in 10 more schools.

Start Date: Fall 2001 for two pilot schools; fall 2003 for expanded implementation.

Target Population: Teenage mothers attending selected high schools and participating in the Graduation Reality and Dual-Role Skills (GRADS) program.

Purpose: To make it easier for teenage mothers to continue breast-feeding after they return to school, and thus to extend breast-feeding duration for this high-risk group.

Services: High-quality double pumps are made available in school, along with a private place to pump. Girls on WIC receive an attachment kit for free, while other girls receive one at a reduced price.

Funding: The original program in two schools was funded with WIC breast-feeding funds. Expansion is being funded through a WIC operational adjustment grant.

Why the Program Was Chosen: This program extends to the school setting services available from existing breast pump programs for WIC mothers, and targets a high-risk population (teenage mothers) by bringing the services to them. It would be replicable at modest cost.

Key Challenges: The program depends heavily on the GRADS teachers to encourage participation; building coalitions with these teachers is critical. Young mothers face many challenges, such as short breaks between classes, that make breast-feeding difficult.

⁴⁹ Telephone interview, April 21, 2003.

BACKGROUND

State WIC Program Background. In Hawaii, the WIC program serves 33,000 clients a month. About one-fourth are women (pregnant or postpartum). There are 16 local agencies and about 30 clinics. The breast-feeding initiation rate is 92 percent for the state and 75 to 94 percent for WIC participants, depending on the clinic and its demographics.

Program History and Objectives. Hawaii implemented a statewide pump program in January 2000. This program consists of giving away manual pumps and lending hospital-quality double electric pumps. Part-time working and schooling mothers, partial breast-feeders (receiving fewer than four cans of formula a month from WIC), and some mothers with transient medical needs are eligible for manual pumps. The pumps on loan are for exclusively breast-feeding high-risk infants and full-time working or schooling women. Mothers who borrow the electric pumps receive a free attachment kit to keep.

Returning to school is a primary barrier to breast-feeding duration among high school mothers, so the state's Contracted Breastfeeding Specialist developed the idea of keeping double electric pumps in schools for multiple girls to use between classes. Although a breast-feeding WIC teen qualifies for the pump program, most do not participate. The Breastfeeding Specialist was concerned about teenage mothers carrying around the double pumps along with all the other things they need to bring to school. In addition, she wanted to make it easier for teen mothers to continue breast-feeding once they returned to school, since many would start but then quit when they went back to school. The goal of the program is to increase the duration of breast-feeding among teenage mothers.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. Teen mothers at 12 public schools on Oahu, Hawaii, and Kauai are eligible to use the pumps. All teen mothers in the schools can use the pumps, even if they are not on WIC. Girls on WIC get the attachment kits for free. Girls who are not on WIC have to buy the kit, but are offered a reduced price by private vendors. The attachment kit can be converted to a manual pump for use on weekends and when the girls are not at school.

Any girl who is interested in using the pump just has to ask the GRADS teacher. The teacher gives the girl a form to bring to WIC saying that she attends one of the PITS schools and is a parenting teen. The girl can then go to WIC and get an attachment kit. This form is useful because some of the girls are not very articulate and would have difficulty explaining their situation at the WIC clinic.

The teachers set up special areas where the girls come to use the pump. In one pilot school, the area is a corner of a room that is partitioned. There is a chair, a stool, and some posters. In the other pilot school, the pump is in a separate room that used to be a storage room, while at another school it is in the health room. The key is to have a comfortable place for the girl to sit. They usually pump for the 10 minutes between classes, although it takes 20 minutes to pump fully—that is all the time they have. They are also welcome to come in at recess and lunch times. Sometimes two girls pump at the same time. In one of the pilot schools, the non-GRADS teachers have been very supportive of this program. If a mother in this school is late to class due

to feeding or pumping, she is given a permission slip with no questions asked, as long as she lets the teacher know she will be late; this communication is handled teacher-to-teacher via cell phones.

The teen mothers on WIC who breast-feed usually also get formula from WIC, but they still have access to the breast-pumps. In Hawaii, women generally cannot borrow an electric breast pump if they are using formula. Pumps are usually available only to exclusively breast-feeding women. However, the WIC program makes an exception for teens, because their circumstances are such that they cannot always use breast milk exclusively. For example, the mother may not be able to nurse exclusively because the baby may be with the father's family at times, or she may need to leave the baby at child care while she works or attends school. In addition, because teen mothers have only 10 minutes between classes to pump, pumping may not be enough to feed the baby breast milk all the time. Furthermore, their lives are hectic, and they may have difficulty handling the planning needed to have pumped breast milk available at all times.

Coordination and Collaboration. The key collaboration for this program is with the schools—specifically, between the teachers in the GRADS program and the nearest local WIC agency. GRADS is a support program for pregnant and parenting teens in school. It is designed to teach them life skills and help them succeed in school so they can graduate and further their educations. The schools in PITS each have a designated GRADS teacher. These teachers took on the task of getting the school principals to agree to the program. In addition, they spread the word about the pumps and found and decorated private spaces for pumping. The local WIC director or breast-feeding coordinator is asked to visit the schools with the state breast-feeding specialist to get to know the teachers and the students, and to establish ongoing collaboration.

Participation. The State Breastfeeding Contractor did not have precise figures on the number of teen mothers who used the pumps during the pilot phase, and had even less sense of participation levels at the new schools. Nonetheless, based on her own interactions with the girls, she thought that, at the smaller pilot school, about 12 girls consistently pumped during the last year. Overall, because of the small numbers involved at each school, teacher reports of participation, although anecdotal, seem likely to be fairly accurate.

Preliminary surveys and teacher interviews indicate that teen breast-feeding rates have become much higher since the program was implemented. Furthermore, teachers in the pilot project reported that breast-feeding durations have increased. Teachers reported that the program has increased breast-feeding durations from an average two to four weeks of partial breast-feeding postpartum, to about 80 percent breast-feeding upon return to school, which generally happens at six weeks postpartum. Some young mothers are now breast-feeding for six months to one year or longer. In one participating school, there is now only one formula-feeding parent, while the eight others are exclusively breast-feeding.

Interestingly, the program is more successful when child care is available at the school. In fact, one Kauai high school has put the pump in the child care room, so that even if the infant is sleeping, the mother can pump while being near her baby, or she can pump one breast while the infant feeds on the other. This may also help increase “let down” and improve maternal milk supply. Presence of a child care center at the school also provides an indication of a supportive environment for teen mothers.

The teen mothers who participate in PITS are of various ages and some have more than one child. Most have a boyfriend, and most come from families who do not believe in abortion. Staff report that many are normal teenagers, with a lot of pressure on them, but some are fairly high-risk. Like most teens, they are concerned about their image. The students involved in the program are from many ethnic groups: Hawaiian, Filipino, Micronesian, Caucasian, and African American.

Outreach. The girls in GRADS hear about the pumps from their local WIC agency, the teachers, and other girls; some also see the pumping areas that have been set apart. The Breastfeeding Specialist also reported the program has helped change the “culture” in the schools. Now, students and teachers accept that pumping is what mothers do in these schools. Pumping and breast-feeding used to be the exception, but now have become “the thing to do.”

Expansion Plans. The program is expanding to 10 additional schools throughout Hawaii during the 2003–2004 school year. The Breast-feeding Specialist will go to each site’s WIC agency and train the local Breastfeeding Coordinator and other staff on how to link with the schools to provide attachment kits to the girls. She is meeting with the GRADS teachers and the girls at the schools to get the program started. She expects the local Breastfeeding Coordinators to become involved and help keep the program running.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The State Breastfeeding Contractor conceived the program and got it up and running. She conducts periodic surveys and comes to talk to the girls. The local WIC clinics provide attachment kits to the girls as part of their regular services. However, the GRADS teachers run PITS on a day-to-day basis.

One important feature in how the program was set up is that WIC staff dealt with each school directly, rather than going through the state Department of Education. The GRADS teachers initially talked to the principals to obtain their agreement. Then the State Breastfeeding Consultant helped negotiate a Memorandum of Agreement between WIC and each school, which specifies the responsibilities of each party. For example, WIC is responsible for servicing the pumps, but if a pump is stolen or vandalized, it is the school’s responsibility.

Funding. For the first two years, costs were covered by regular WIC breast-feeding funds. The Breastfeeding Specialist charged her time as usual to WIC. The teachers are employed by the school, so there is no cost to WIC for their time. WIC already had the pumps, which were purchased with food funds. To expand the program to 10 more schools, the state received a WIC Operational Assistance Fund Grant of \$49,500.

In the long run, the Breastfeeding Specialist thinks that PITS probably saves WIC money, because it provides a way to use one or two breast pumps for multiple clients, with minimal staff involvement and less likelihood of theft.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. This program is straightforward to implement, has minimal costs, and may in fact save WIC money by reducing formula expenditures. It also offers the opportunity to increase breast-feeding durations for teenage mothers, whose infants are often at high risk.

As noted above, the impressions of the teachers and the Breastfeeding Specialist are that usage of the pumps has been substantial. The GRADS teachers believe that PITS has improved breast-feeding rates and durations, decreased illnesses among the babies, and thus decreased absenteeism among the girls.

Even after PITS implementation, most teen mothers introduce formula at two to four weeks postpartum. Nonetheless, breast-feeding duration is longer among teen mothers after PITS implementation in their schools. More teen mothers breast-feed exclusively or feed a combination of breast milk and formula, rather than ceasing breast-feeding completely. Because of the time constraints on pumping between classes, local WIC staff have been encouraged to work with these young mothers to encourage as much breast-feeding as possible, while still being flexible about providing formula. This change in attitude, along with the availability of the pumps, has proven to be effective in lengthening the breast-feeding relationship, while supporting the young mothers based on their needs and the realities of their day. Post-intervention student surveys in the pilot schools show that students view both WIC and their schools as much more supportive of breast-feeding than before the implementation of PITS.

Hawaii WIC has developed new surveys for the new sites this year—they will do a “pre” survey before the program starts, and then a “post” survey after it has been going awhile. These surveys will provide a stronger basis for evaluating the program’s outcomes.

Key Challenges. The program is very dependent on the GRADS teachers and their enthusiasm for encouraging participation. The Contracted Breastfeeding Specialist hopes, with the new grant funding, to be able to spend more time in the schools sharing information and assisting young mothers with any breast-feeding problems.

Lessons Learned. The Contracted Breastfeeding Specialist advises others interested in starting a similar program to work closely with the teachers in school-based programs for teen parents and make sure they are committed to the breast pump program. They know the teen mothers and the realities that they face. She also recommends taking the teachers’ advice on how the program should work in their school.

The initiative for the program in this case came from the state WIC agency, but they worked with the local schools, rather than with upper levels of the school bureaucracy, to obtain access to the young mothers. This type of coalition seems important in reaching teen parents, as they have difficulty finding time and transportation to visit the WIC agency.

An important caveat is that the high use of the in-school breast pumps by Hawaii's teen mothers may be harder to achieve in other places. Breast-feeding rates in Hawaii are very high in general, and the local culture is very supportive of breast-feeding.⁵⁰

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⁵⁰ In contrast, we spoke with a local WIC agency that operated a similar program in a state with low breast-feeding rates. They found that the pumps available in the schools were hardly used, although other WIC services were appreciated.

INFANT-FEEDING CLASSES FOR TEENS⁵¹
LUCAS COUNTY, OHIO

OVERVIEW

Location: Lucas County, Ohio (Toledo and environs)

Start Date: 2000

Target Population: Pregnant teenagers on WIC or in school programs for pregnant teens.

Purpose: To provide breast-feeding education for pregnant teenagers that is targeted at their needs and concerns and thus encourages them to breast-feed their babies.

Services: WIC staff run, for pregnant teens on WIC, a class that presents information and includes open-ended discussion of infant feeding from the point of view of teenagers, a video on breast-feeding designed for teens, information on other resources, and “goody” bags with incentives and informational brochures. In addition, in-depth classes are offered in local high schools as part of school programs for pregnant teens.

Funding: Staff time is funded from WIC breast-feeding funds. Food and incentives were originally funded through small grants from the March of Dimes (MOD) and local hospital foundations, but the WIC agency is taking over these costs after obtaining a special waiver from the state agency.

Why Program Was Chosen: The WIC class seems a good example of breast-feeding education targeted to a particularly high-risk group—pregnant teens—and it would be replicable in a range of settings at modest cost. The partnership with the schools is also of interest.

Key Challenges: Convincing teenage mothers to breast-feed is an ongoing challenge, and it is difficult to affect their decisions through one class. In addition, only 15 to 20 percent attend. Additional contacts in the schools and in the hospital around the time of the birth are used to reinforce the message.

⁵¹ Telephone interview, May 30, 2003.

BACKGROUND

Community Characteristics. Lucas County, Ohio, contains the city of Toledo and its immediate environs. It is located in the northwest corner of the state, bordering Lake Erie and Michigan. The 2001 population of this urban county was just over 450,000. The county is 17 percent African American, compared to 12 percent in the state as a whole, and 5 percent Hispanic, compared to 2 percent in the state as a whole. The 1999 poverty rate was 14 percent in Lucas County, much higher than the 11 percent rate in the state overall. Lucas County has the second-highest teen pregnancy rate in the state, and it used to have the highest rate.

WIC Program Background. The WIC agency is part of the Toledo-Lucas County Health Department, which operates eight WIC clinics, three or four of which are in local hospitals. The agency enrolls about 12,000 WIC clients a year in all categories.

In addition to the infant-feeding classes that are the focus of this profile, the Toledo-Lucas WIC program offers a range of other services for breast-feeding women:

- They can schedule appointments with the breast-feeding staff at the central WIC office if they need breast-feeding help; if transportation is a problem, breast-feeding staff will travel to other WIC clinics.
- If pregnant WIC participants attend infant-feeding classes or otherwise express interest in breast-feeding, WIC staff attempt to telephone them right after the birth. If the mothers are having any problems, staff encourage them to bring the baby in to see the lactation consultants. The main WIC clinic has a very accurate scale that gauges the amount of milk ingested when the baby is weighed before and after nursing.
- WIC lactation consultants coordinate with the hospital lactation consultants—the hospital consultants work with mothers while they are in the hospital, and WIC staff take over after discharge.
- WIC has electric pumps to lend out and manual pumps to give out: (1) Lactina pumps are targeted at mothers with babies in the hospital, but there is a waiting list; (2) other, less-expensive electric pumps are provided for mothers returning to work or to school, with some models on loan and some that mothers can keep.

Program History and Objectives. The breast-feeding coordinator started separate classes for teen mothers in 2000. When conducting breast-feeding education classes for pregnant women that included both adults and teenagers, the coordinator noticed that the needs and concerns of teenagers were very different from those of older women, and she thought it would be more effective to offer classes targeted at teens. She wanted to present the benefits of breast-feeding in a way more meaningful to teens, and also to hold the class at a time when it would be easier for them to come.

Soon after the Health Department started offering the teen classes, the breast-feeding coordinator received calls from the teachers of the Graduation Reality and Dual-Role Skills (GRADS) programs (special programs for pregnant or parenting teens) in local high schools,

expressing interest in the infant-feeding classes, but also some concern that girls would skip school to attend them. The coordinator offered to present classes in their programs, which they were very happy to have. She began to visit the three area high schools regularly and give classes on breast-feeding—these classes have been opportunities for the teachers also to learn, and she reaches some girls who will not come to the WIC class (and some who are not eligible for WIC).

PROFILE OF INNOVATIVE PROGRAM

Services Provided. The breast-feeding class WIC runs is for pregnant teens on WIC. They all receive a postcard around their seventh month of pregnancy inviting them to the next class. The postcard refers to the class as an “infant-feeding class” (mention of breast-feeding may discourage attendance) and notes that pizza will be served. Sometimes, the postcards mention some of the other incentives available (described below). The WIC class is offered every six weeks at a local church, on Wednesday at 3:30 P.M., so teens can come after school. (At the church, more parking is available than at the WIC clinic; they hold classes for older mothers there, too, but at 10 A.M.) The class, which usually lasts from 60 to 75 minutes, counts as a WIC nutrition education class. The girls sign in and give their WIC case number.

The class is intended to get out a few key messages:

- Breast-feeding is best for both mother and baby.
- WIC staff will help. They make sure the expectant mothers know how to get in touch with the breast-feeding coordinator and her staff.
- Pumps and an enhanced food package are available.
- It is possible to breast-feed and to go back to school. The breast-feeding coordinator has arranged private rooms for pumping at all the local high schools and colleges.

As the teens arrive, music from one of the radio stations popular with teens plays at a low volume. At the start of the class, they serve pizza and drinks—it is a draw and helps to break the ice. Next, the coordinator shows a video that shows teens breast-feeding and talking about why breast-feeding is best. She shows this first partly because “teenagers tend to be late.”

At times, the breast-feeding coordinator invites various speakers from other health department programs. For example, a staff member who offers smoking cessation classes may talk about these classes (as many pregnant teens also smoke), or another staffer may talk about the “Help Me Grow” program, which offers up to two home visits from a nurse after the baby is born.

The most useful way to get the pregnant teens to consider breast-feeding is to have a breast-feeding teen attend the class with her baby—this has more impact than any information from the staff, as the breast-feeding teen can tell those in the class how breast-feeding works for her. In addition, the breast-feeding coordinator sometimes brings the “peer helper” who works with her

at the WIC agency. She is a mother who is now 30 but who had her first child as a teen and has been on WIC, and she shares her experiences.

Next, the coordinator gives out the “goody bags” that she puts together for the girls and goes over what they contain. The contents vary somewhat, but they tend to include:

- Handouts with information and resources—for example, brochures on whom to call if they are breast-feeding and having problems, how to store breastmilk, how to know if the baby is getting enough milk; flyers from other organizations; and information from the MOD on folic acid (required as part of a MOD grant—see the discussion of funding).
- Condoms—the coordinator discusses birth control and what works best while nursing.
- “Onesies”—baby underwear purchased with the MOD grant.
- Free toiletries and the *American Baby* magazine.
- Magnets with numbers for the breast-feeding coordinator’s office (for breast-feeding help), magnets with a “Breastmilk Storage Guide,” and pens with the WIC office phone number.
- A voucher for a half-price car seat if they attend a car seat class.

The breast-feeding coordinator shows the girls different breast-feeding aids and points out that they can suggest them as presents to family or friends who may want to buy a gift for the baby; examples include breast-feeding pillows. She also discusses breast pumps, including which pumps are available through WIC, and which types of pumps are better than others. Many of the girls are interested in this information.

Next, there is an open-ended discussion. The breast-feeding coordinator passes out a series of questions on laminated paper. She asks for volunteers to read the questions (as not all the girls can read). For example, questions include:

- Can you breast-feed and go back to school?
- Can you smoke and breast-feed?

She tries to get a group discussion going, letting them express what they believe and offering more information. She tries to focus on the issues that concern teens, recognizing their immaturity, such as “Will my breasts sag if I breast-feed?” or “Can I still go out with my friends?” The coordinator discusses the benefits of breast-feeding from the teen mother’s point of view, such as: the baby is easier to take care of, she can get more sleep at night with nursing in bed, she does not need to take bottles when out, and she will have larger breasts.

The coordinator is flexible in leading the discussion and will focus on what seems to be of most concern to the girls attending. The discussion lasts 50 minutes to 1 hour. She also encourages the girls to bond with each other; some exchange phone numbers at the end. In addition, there is a drawing for a baby quilt (made and donated by local volunteers) at the end of each class, which is another incentive for the girls to attend.

The breast-feeding coordinator also gave classes at three local high schools in GRADS, their special program for pregnant/parenting teens, every six weeks. In fall 2003, the school district moved all pregnant and recently delivered teens to a separate school; the school has a satellite WIC clinic on site every three to four weeks, and she offers classes at that time. In the school setting, she sees the same girls repeatedly, so she covers different information each time. For example, one class may focus on positioning the baby on the breast, and another class may focus on what to do if the baby is premature (not uncommon for teen mothers). She always brings a few of the goody bags in case the class contains girls who are close to delivery. In spring 2003, there were about 10 to 15 girls in the program at each of the three high schools.

Coordination and Collaboration. In addition to the collaboration with the schools, WIC staff also work with the hospitals to help teenagers. The hospitals have lactation consultants on staff, and they will refer mothers to WIC when appropriate. In addition, the local hospitals offer a Teen Lamaze class, and the WIC breast-feeding coordinator works closely with the people who run this class. She refers WIC teens to the Lamaze class as appropriate, and the hospital staff in turn provide information about WIC services, including WIC's teen classes.

Participation. In general, about 15 girls attend each WIC class. Many are brought by someone else—their mother, boyfriend, or other relative—since they need a ride. Thus, 20 or more people typically attend.

About 15 to 20 percent of those invited attend each class, a participation rate that is typical for WIC classes. Some girls may come after a second invitation, or the breast-feeding coordinator may reach them in the classes she gives in the schools. In a few cases, young women come after they have had their baby, as some deliver before the next available class. The coordinator told a story of a girl who came to the class with a three-day-old baby and stayed after to ask, “Can I still breast-feed?” She hadn't realized how important it was. The staff stayed at the clinic and worked with her until she was successful in getting started.

The classes in the schools reach a potentially wider audience—all pregnant teens in the school parenting programs, including some who may not qualify for WIC. However, the WIC classes may attract some girls who are not in school.

Publicity/Outreach. Most WIC teens are recruited through the postcards described above or their contacts with WIC staff. In addition, the local hospitals and doctors offices have information on the breast-feeding help available through WIC to offer their patients. The breast-feeding coordinator also visits the high schools and tells teens who do not know about WIC how to enroll, and offers classes there as described above.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The breast-feeding coordinator for the agency developed and runs the classes. She is a nurse and an Internationally Board Certified Lactation Consultant (IBCLC). Toledo-Lucas County WIC also employs two other lactation consultants and a peer helper who work part-time—they sometimes help with the teen classes. They recently hired three more peer helpers, as they have abundant funding for breast-feeding services right now.

Funding. Staff time is funded from WIC breast-feeding promotion funds. The coordinator also obtained a grant from the MOD, and small grants from other local hospital foundations. These grants ranged from \$500 to a few thousand dollars. They also take advantage of some free materials from manufacturers and donated space at the church where the WIC classes are held.

The MOD funding helped pay for incentives for the girls and for the food at the classes. As part of the grant, they asked the WIC agency to include MOD material on folic acid in the informational packets offered to the girls, which the agency was glad to do. The coordinator also tries to offer a snack high in folic acid for the class.

When we spoke with the breast-feeding coordinator in May, the MOD funding was about to run out, but the WIC agency director had added funds to the WIC budget for the incentives the grant had paid for. The agency received permission from the state agency to pay for these incentives, because the program is seen as successful.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. There is little direct evidence concerning program outcomes for the teen classes, but the Toledo-Lucas County breast-feeding program overall shows signs of success. The breast-feeding coordinator reported that since she started at the agency six years ago, breast-feeding initiation rates have increased from around 20 percent to 39 percent. Unfortunately, they do not track breast-feeding rates separately for teens.

The coordinator reports the teens react pretty positively. Some of the mothers of the teens say, “I wish you had been around when I had my kids.” She bonds even more with the girls in the school programs, as she sees them repeatedly during their pregnancy. These girls gave a luncheon for her and other speakers who came in to talk to them at the end of the school year. Most of these girls, she says, breast-feed at least for a short while, often until they return to school.

Key Challenges. It is an ongoing challenge for the WIC program to find ways to persuade pregnant teenagers to breast-feed. The special class for pregnant teens seems to be a step in the right direction. The classes offered through the schools and related work to build support for breast-feeding in the schools are even stronger steps. The breast-feeding coordinator felt it was more useful to reach the young women repeatedly with the message of breast-feeding than to provide the information only once. Nonetheless, even the single class seems a useful way to open more young women to the idea of breast-feeding, particularly if the hospital lactation consultants and WIC staff can then follow up at the time of the birth.

Lessons Learned. The classes described above were developed and operate at minimal cost and it seems like they could easily be replicated, particularly by staff experienced in working with teenagers. The key idea is to try to reach teenagers about breast-feeding in terms that relate to their interests and concerns.

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III. ENHANCING NUTRITION EDUCATION

WIC has always provided nutrition education and counseling to clients, often in the form of one-on-one counseling and lecture-style classes. In recent years, WIC programs across the country have taken steps to reinvigorate and update their approaches to nutrition education. Moreover, as described in Chapter I, FNS has encouraged these efforts through its RQNS grant program and revised Nutrition Services Standards. Programs in three of our five key areas of interest—obesity prevention, preventive health care, and staff training—are all examples of strategies to strengthen and broaden the nutrition education and counseling provided through WIC.

In looking at these and other programs that offer enhanced nutrition education, we discerned some common themes:

- ***New Methods for Working with Clients.*** Staff are learning to use approaches such as facilitated group discussions and motivational interviewing to help clients change their behavior. We highlight a training program in Michigan focused on facilitated group discussion but also note that these techniques have been incorporated to some extent into the Oklahoma and Pennsylvania obesity prevention initiatives.
- ***Updated Education Content.*** Programs are working to include nutrition messages related to today's main nutrition-related health concerns, in a positive framework of healthy eating and lifestyle choices. Relevant programs include those related to obesity prevention and healthy lifestyles for young children (including physical activity), preventive dental care, and screening for alcohol problems for prenatal participants. We describe three initiatives related to obesity prevention (in Oklahoma, Florida, and Pennsylvania), one related to dental health (in Alabama), and one related to alcohol screening (in Los Angeles).
- ***Broader Target Audience.*** WIC nutrition education has traditionally focused on mothers, but initiatives are increasingly targeted to young children and the family as a whole. For example, both the Oklahoma and Alabama initiatives include activities for children, such as puppet shows and reading children's books related to the theme of the initiative. Another way in which WIC agencies seek to reach a broader audience is to find better ways to serve non-English speakers, such as the Wisconsin training program (discussed below) that trains bilingual support staff to provide nutrition education.
- ***More Staff Training.*** Many of the programs discussed in Sections A and B (and in Chapter II) involve special training. In Section C, we highlight three very different programs that all have state agencies providing special training to local agency staff: one focused on methods, one focused on content, and one focused on improving services for non-English speakers.

A. OBESITY PREVENTION INTERVENTIONS

Overweight and obesity among children have been growing over time; in particular, obesity (defined as a BMI greater than the 95th percentile on standard growth charts) among children 6 to 11 has tripled from 5 to 15 percent since the late 1970s (National Center for Health Statistics 2003). Policymakers are increasingly concerned with the issue, because of the negative health consequences of obesity. WIC is a natural setting in which to implement preventive strategies, as poor eating habits may begin to develop during the preschool years. Parents tend to think that a child being overweight (as measured by growth charts) is not a concern at preschool age (Baughcum et al. 2000; Jain et al. 2001). Parents are more receptive to programs that focus on healthy eating behaviors and physical activity. To fulfill the program's preventive mission, materials need to target all families, not just those with overweight children.

In this section, we describe two comprehensive obesity prevention programs and one with a very focused message:

- The Oklahoma Get Fit With WIC program includes lesson plans for parents and children, incentive items, activities for children, staff training, and modifications to the food package, which were developed using special WIC funding.
- The Pennsylvania Obesity Prevention Modules are steps in a similar direction, but without special funding. Pennsylvania state WIC staff developed lesson plans for encouraging healthy eating and materials for training staff to use the plans, but they have left it to local nutrition education coordinators to conduct the training.
- Florida's Mooove to Lowfat or Fat Free Milk Campaign focused on a specific message that is very salient to WIC—use low-fat or fat-free milk for children age 2 or above. It is interesting in part because this campaign was a joint effort of a number of state programs. The campaign included waiting room displays, flip charts, and props to use during nutrition education contacts, interactive activities such as taste tests, and (on a voluntary and pilot basis) modified food coupons.

At the same time as this study was in progress, the FIT WIC study tested a range of approaches to obesity prevention among children in five states. An implementation report from this study is now available (U.S. Department of Agriculture 2003), but it was not available at the time our programs were selected.

GET FIT WITH WIC¹ OKLAHOMA

OVERVIEW

Location: Statewide

Start Date: November 2001

Target Population: WIC infants and children, and by extension, their parents and caregivers

Purpose: To provide a unified nutrition education message for children, primarily regarding overweight and obesity prevention, that focuses on (1) reducing consumption of sweet drinks; (2) consuming less than six ounces of fruit juice a day; (3) using low-fat or nonfat milk for children older than age 2; (4) increasing consumption of water, fruits, and vegetables; (5) increasing daily physical activity; and (6) encouraging breast-feeding as the preferred method of feeding infants.

Services: Get Fit With WIC (GFWW) uses a multifaceted approach, including group nutrition education classes for adults and children ages 1 to 5, individual counseling in clinics with a small caseload, staff training, and revision of the WIC food package.

Funding: \$501,210 from operational adjustment funds.

Why Program Was Chosen: Nutrition education in Oklahoma's WIC program addresses healthy eating, but it also emphasizes physical activity and how the two are related to overweight and obesity prevention. This is a focused, statewide campaign that is integrated into everything that WIC does while giving local staff flexibility in nutrition education delivery. In addition, nutrition education is directed, in part, to 1- to 5-year-olds through the Kids Club.

Key Challenges: Nutrition educators are not always comfortable with the new approaches and sometimes lack time to prepare or conduct the new lessons. Adequate space for activities and for storing intervention tools can also be a challenge. In addition, it is hard to both encourage flexibility and ensure quality in a statewide program.

¹ Telephone interview, April 9, 2003; site visit, September 22-23, 2003.

BACKGROUND

State Characteristics. Oklahoma has a population of about 3.5 million, based on an estimate for 2001. In 2000, about eight percent of the population was American Indian or Alaskan Native, higher than the U.S. average. That same year, about eight percent of the population was African American and six percent Hispanic, both lower than the nation as a whole. The number of people living below poverty is higher in Oklahoma than the U.S. average—approximately 15 percent versus 12 percent, respectively.

WIC Program Background. The Oklahoma State Department of Health (OSDH) oversees 142 WIC clinics in 77 counties, serving about 90,000 clients per month, on average, for all categories of participants. There are approximately 50 nutritionists on staff at the local level. The Oklahoma WIC program has Program Consultants for each of the eight service areas. These are state-level nutritionists who function as liaisons between the local agencies and the state office in Oklahoma City to transfer information and policy change.

Program History and Objectives. Obesity is widespread in America, and the evidence clearly shows that trying to prevent obesity early in the life cycle is more productive than trying to treat the condition later. GFWW has responded to the need for prevention through a multifaceted program designed to promote healthy food choices, lifetime activity, and parental involvement in all nutrition education efforts. The initial planning for the campaign began in 2000. At that time, the Oklahoma State WIC program was identifying ways to revitalize nutrition education. Until that point, WIC nutrition education had varied considerably from local agency to local agency. State and local staff members admit that, before GFWW, nutrition educators in WIC lacked direction and focus. Staff members and clients often found nutrition education boring. In turn, staff members were not very energized and motivated. Clients attended classes because they had no other choice, not because they enjoyed being there. The lesson plans available from the state for local educators were also limited in number and not very innovative or creative.

The GFWW platform provided an opportunity to change how WIC conducted nutrition education. It enabled local agencies to focus on physical activity and obesity prevention, two topics that had not received much previous attention. It was clear from the beginning, however, that the initiative needed to address obesity without targeting the obese. In addition, the state saw it as important for the campaign to promote “healthy weight” terminology consistently among local agencies rather than calling a child fat, overweight, or obese or making negative statements about obesity.

The challenge during the planning phase was developing a unified nutrition message for the state. However, getting input from the Nutrition Education Focus Group (NEFG) and coordinating progress at the state level facilitated this process.² According to the Director of Nutrition, Education, and Training Division, the main goal of GFWW is to standardize the state’s nutrition education messages to focus on six behaviors intended to reduce childhood

² The NEFG is a group of local agency nutrition education staff who meet quarterly to provide feedback to state staff.

obesity rates. WIC nutrition educators learn to emphasize the following objectives for young children: (1) reducing consumption of sweet drinks; (2) consuming less than six ounces of fruit juice a day (per the American Academy of Pediatrics' recommendation); (3) using low-fat or nonfat milk for children older than age 2; (4) increasing consumption of water, fruits, and vegetables; (5) increasing daily physical activity; and (6) encouraging breast-feeding as the preferred method of feeding infants (since some research suggests a connection between breast-feeding and reducing childhood obesity).

Target Population. GFWW is aimed at WIC children of all ages, even infants, and consequently, the parents and caregivers of these children. While program officials hope that families will be inspired to eat better and exercise more, they primarily hope that children will adopt good habits that will continue throughout their lives. Importantly, the messages of the initiative are for all WIC children, not just those who are overweight or obese, or who have overweight or obese parents. Some nutrition education classes target caregivers. Kids Club is a nutrition education class for children 1 to 5 years old. All clients have been introduced to the themes of the GFWW initiative to some degree.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. GFWW is the overriding theme of Oklahoma's WIC program; it is not considered a separate program. However, lesson plans and activities are classified as GFWW if they fall under any of the six objectives. Although WIC staff members all work on the same nutrition messages, local agencies implement these messages differently. The state provides the focus and parameters for the initiative. Because of demographic and cultural differences at the local level, however, the initiative must be flexible to meet the needs of a diverse clientele and special needs of a particular geographical location. The initiative focuses on "fun" so that participants will want to attend a nutrition education class and staff members will enjoy their work.

The state has a list of state-approved lesson plans that can be used in nutrition education efforts (see Table). Each clinic has a manual containing these lesson plans. Local staff members review the list of lesson plans to determine what will work best in their clinic. In addition, local staff members find that certain activities or lessons are better received than others among their clients, so they tailor the lesson plans to meet their clients' needs. Established lesson plan topics include increasing fruit and vegetable consumption, increasing whole grain consumption, increasing physical activity, using nonfat or low-fat milk for children 2 years of age or older, increasing water consumption, using the food guide pyramid, and reducing the fat content of foods. Local staff members may develop their own lesson plans or use ones from other states, but their Program Consultant must first approve these plans. Sometimes staff members will inform the state of the need for a lesson plan on a particular topic. Typically, the state Education and Training Coordinator will develop a draft of such a lesson plan and make revisions based on feedback from the NEFG.

The components of the lesson plans can vary. All the lesson plans include objectives, an activity, discussion questions, and lists of intervention tools and resources. Often, the lesson

STATE-APPROVED LESSON PLANS
(AS OF MAY 2003)

Coordinating Children's Book	Lesson Plan	Target Audience
2003		
<i>I Want My Banana</i>	Get Fit with WIC	Children
	I Want My Banana	Children
	Milk and Cheese Are Sure To Please	Children
	Have Fun with WIC Foods	Children
2001		
Pecos Pyramid and the Food Group Gang		
	Billy the Bread	Children
	Soda Pop Sam Says . . . Not Every Day!	Children
	Pecos Pyramid	Children
	Charlie Cheese and Judge Roy Bean Round Up Protein	Children
	Bronco Broccoli and Citrus Sue Fly to Mars	Children
2000		
<i>What's for Supper</i>	Quick Meals from Your Pantry	All
	Let's Do Lunch	All
	Eat Your Vegetables	All
	Foods at the Tip	All
	Don't Be a Square: Planning Meals the Pyramid Way	All
	Packed with Protein	All
1999		
<i>Cheerio's Play Book</i>	Maintain or Improve Your Health	All
	Where is Your Milk Mustache?	Children
	Babies Need Calcium, Too!	Infants
	Move for the Fun of It	Infants/Children
	Safe and Healthy Eating	All
	Folate: An Ingredient in the Recipe for Wellness	All
	Holiday Low-Fat Leftovers	All
1998		
<i>What's for Supper</i>	Don't Be a Square: Planning Meals the Pyramid Way	All
	Quick Meals from Your Pantry	All
	Fruits and Vegetables for Babies	Infants
	How to Pack 5 A Day for Children	Children
	Begin with Breakfast	All
	Feeding the Right Way	Infants

LESSON PLANS (continued)

Coordinating Children's Book	Lesson Plan	Target Audience
<i>Elmo's World - Food</i>	Smart Snacking for Kids	Children
	Holiday Survival Tips	All
1997		
<i>I Want My Banana</i>	Infant Anemia	Infants
	Meat for Kids	Children
	Milk: Strong Bones and Teeth	Infants
	Calcium: Feed Your Bones	Children
	Fruits for Fun	Children
	Starting Fruits	Infants
	Veggies for Babies	Infants
	Picky Eaters	Children
	Food Safety and You	All
	Breast-Feeding Classes	
	The Joy of Breast-Feeding	Breast-feeding/ prenatal women
	The Case for Breast-Feeding	Breast-feeding/ prenatal women
Special Classes		
	Teens: Eating for Two (Nutrition During Pregnancy: <18 years)	Prenatal teens
	Pregnancy Weight Gain: Too Much or Too Little? (Weight Gain During Pregnancy)	Prenatal women
	Help Your Child Grow Healthy (Underweight/Overweight Children)	Children
	Iron Deficiency	All
	No Milk or Cheese, Please (Lactose Intolerance)	All
	A Healthy Weigh to Live (Weight Management)	All women

plans incorporate games and the Food Group Gang puppets.³ Some lessons plans have a literacy component, which extends the learning to the home (see box). Households are often given the book that is read and discussed during a nutrition education class. The nutrition education classes rotate topics, so households often eventually receive several different books. Nutritionists will often read a book to the children as a means of modeling to caregivers. Some caregivers may not be able to read very well or at all. Sometimes, after hearing the story, they can “read” to their children by telling the story from memory or making up their own story.

As mentioned before, physical activity had not been a focus of nutrition education efforts in the past in Oklahoma. Now, all the nutrition education protocols used at certification

BOOKS FOR REFERENCE, CLASSES, AND INTERVENTION TOOLS

Books for reference for nutritionists:

Baby Play & Learn by Penny Warner, Meadowbrook Press © 1999

Preschool Play & Learn, by Penny Warner, Meadowbrook Press © 2000

Books that are read as part of a nutrition education lesson:

I Eat Fruit! by Hannah Tofts and Rupert Horrox, Zero to Ten © 2001

I Eat Vegetables! by Hannah Tofts and Rupert Horrox, Zero to Ten © 2001

Oliver’s Fruit Salad by Vivian French and Alison Bartlett, Orchard Books © 1998

Oliver’s Milkshake by Vivian French and Alison Bartlett, Orchard Books © 2001

Oliver’s Vegetables by Vivian French and Alison Bartlett, Orchard Books © 1995

Books that are read and distributed to households as part of a nutrition education lesson:

The Cheerios Play Book by Lee Wade, LITTLE SIMON © 1998

Food (Elmo’s World) by John E. Barrett and Mary Beth Nelson, Random House © 2000

I Want My Banana (English and Spanish), by Mary Risk, Lone Morton, and Alex de Wolf, Barron’s Educational Series © 1998

Snackivities! by MaryAnn F. Kohl and Jean Potter, Robins Lane Press © 2001

Vegetable Friends by Tony Lawlor, Bruce Kociemba, and Barry Duncan, Gazelle Inc. © 1999

What’s For Supper (English and Spanish), by Lone Morton, Mary Risk, and Carol Thompson, Barron’s Educational Series © 1998

Books that will be read and distributed to households as part of a nutrition education lesson in 2004:

Feast for 10 by Cathryn Falwell, Houghton Mifflin Co. © 1993

I Will Never NOT Ever Eat a Tomato by Lauren Child, Candlewick Press © 2000

LUNCH! by Denise Fleming, Henry Holt & Company, Inc. © 1998

³ The Food Group Gang is a set of characters developed by the Oklahoma WIC Program. Characters include Pecos Pyramid, Judge Roy Bean, Charlie Cheese, Citrus Sue, Billy the Bread, Bronco Broccoli, and Soda Pop Sam.

appointments include an emphasis on daily physical activity for all WIC categories. Brochures will be available in 2004 that address the importance of physical activity for infants and children. In time, questions related to physical activity will be incorporated into the certification computer program to better establish measurable trends and evaluate progress toward increasing activity goals. In addition, the lesson plans that focus on physical activity make it clear that physical activity is not just about organized sports or membership in a fitness club, but also about age-appropriate play. Nutrition educators often use the “It’s Toddler Time” (by Carol Hammett and Elaine Bueffel, KIMBO[®]) cassette tape with its fun songs and accompanying activities to get children moving during a class. The state also provided nutrition educators with reference books on age-appropriate play, and they can photocopy pages to give to clients as appropriate.

To get people back into the kitchen, the state WIC office is currently working on a series of “Cooking with WIC” live distance education broadcasts. These broadcasts use videoconferencing technology and will provide food demonstrations using WIC foods. The overall purpose of “Cooking with WIC” is to present nutrition education concepts using methods, such as field trips and cooking demonstrations, that are not feasible in a clinic setting. Specific objectives include improving how WIC supplemental foods are used; improving skills in food purchasing, meal planning, and preparation of nutritious meals and snacks; including children in food purchasing, meal planning, and food preparation activities; and improving dietary behaviors. Based on client feedback, five topics have been selected: Snackactivities, Quick & Easy Meals, Nature’s Original Fast Foods—Fruits & Veggies, Breakfast for Everyone, and Making Fast Food Fit. The format of “Cooking with WIC” will involve a live introduction assisted by the receiving site’s nutrition educator in a facilitated discussion. Key points will be introduced live, followed by a previously recorded food preparation segment that details purchasing information and shopping tips when applicable. A videotape with the live broadcast and food preparation segments will then be distributed to the clinics with a lesson plan for future use. The packet will include talking points, discussion questions, recipes, and other handouts. For the first lesson, each family will receive the “Snackactivities” book, whether viewing the partially live or taped broadcast. Subsequent nutrition intervention tools include a magnetic shopping list, chop chop cutting board, cereal bowls, and food guide pyramid magnet.

Intervention tools are essential for the GFWW campaign. The nutrition education lesson plans designate which intervention tools should be distributed during the class. Intervention tools include GFWW beach balls, Frisbees, sippy cups, chop chop boards, infant spoons, magnets with the Food Group Gang characters, and books. The WIC staff members also have GFWW mouse pads, nametags, and lanyards. Before October 2003, intervention tools were distributed through an annual drop shipment based on caseload. It was often difficult for local staff members to find room to store the large volume of materials and to plan well enough in advance so that they would not run out of materials. Some local staff members would need to exchange intervention tools with other clinics. For example, one clinic might have had more success with the Frisbees than with the beach balls, but the reverse might have been true in another clinic. In such a situation, the Program Consultant would facilitate the exchange of tools between the clinics so that both had what they needed instead of being oversupplied with unused materials. Now, the state will allow local WIC clinics to order intervention tools through the state by a migrant process. In this way, local agencies get what they need for their clientele.

Many clinics also have learning tables, which offer WIC children a constructive diversion while they are waiting for their appointments. Tables are painted with fruits and vegetables, and have toys attached that address healthy eating. The tables have activity stations that are bolted to the table and have attached pieces so that the activities and pieces do not get lost or stolen. The stations involve counting, spatial arrangements, or working an item through a maze.

To reinforce the GFWW messages, the WIC food package has been modified to meet the American Academy of Pediatrics juice recommendation of no more than four to six ounces of fruit juice a day. This modification also included adding vegetable juice to the WIC food package. Although participants can choose any type of milk, the WIC staff members encourage nonfat or low-fat milk for children older than age 2. In addition, clients who have a high body mass index do not receive both cheese and peanut butter in the same month.

KIDS GET FIT WITH WIC

Kids Get Fit With WIC (KGFWW) is an annual event that typically takes place during National Nutrition Month in March. This initiative has taken the place of Team Nutrition efforts.⁴ State WIC office staff, including nutritionists and support staff, conduct this event targeting Head Start children, families, and their teachers. The two- to three-day event goes to a different region each year and puts on two to three health fairs a day. All the regions have been visited. In 2003, more than 300 Head Start children, their caregivers, and their teachers attended the event. During KGFWW events, Head Start children visit five different stations featuring (1) the Tooth Fairy, a dental health game; (2) the Wheel of Food, a game that helps children identify members of different food groups; (3) a puppet show featuring Citrus Sue and Bronco Broccoli, discussing good sources of vitamins A and C and the benefits of physical activity; (4) a Food Tasting Table, where children are encouraged to taste fruits and vegetables; and (5) the Pyramid Hat Table, where children choose cutouts of their favorite foods and glue them to a construction paper hat. The children also participate in a group version of the “The Hokey Pokey” to demonstrate how much fun moving to music can be. In addition, the state staff members dress up in adult-sized costumes of Pecos Pyramid and the Food Group Gang. The activity features Pecos Pyramid, Judge Roy Bean, Charlie Cheese, Citrus Sue, Billy the Bread, Bronco Broccoli, and Soda Pop Sam in a skit about variety and moderation in food choices. Each of these characters is represented as a hand-sized puppet in all of the local clinics and incorporated into nutrition education and Kids Club classes to complement the lesson plans and books.

⁴ Team Nutrition is a USDA program that provides training and technical assistance in promoting healthy eating to programs such as Head Start that participate in the Child and Adult Care Food Program.

Coordination and Collaboration. In some counties, the Expanded Food and Nutrition Education Program (EFNEP)⁵ conducts general nutrition education classes in the clinics using GFWW lesson plans. Oklahoma State University's EFNEP program is working with the state WIC office on the "Cooking with WIC" videoconference telecast. GFWW was presented at the 2003 Oklahoma Public Health Association conference, and there are plans to present the campaign at the Oklahoma Dietetic Association conference in 2004. Other agencies identified as stakeholders include the National WIC Association, OSDH, Head Start, Turning Point,⁶ and the various state-level task forces that Program Consultants participate in.

Publicity and Outreach Efforts. Messages for GFWW are primarily intended to be introduced during nutrition education classes, but local agencies can incorporate them into the WIC certification process, bulletin boards, and waiting rooms. Some sites introduce elements of the initiative to their clients during certification, because there is such a small caseload that there are never enough incoming clients at one time to have a group nutrition education class. In these sites, nutrition education is more individualized. In addition, the intervention tools are also a means of advertising. Clients see what nutrition education class participants receive and are told by WIC staff members that they can only receive the intervention tools if they come to class. In addition, the OSDH WIC Approved Food Card has a GFWW message on the back panel with Pecos Pyramid, as well as the six objectives of the initiative.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The Director of Nutrition, Education, and Training Division and the Education and Training Coordinator assume responsibility for the annual Nutrition Educators Seminar and for conveying the statewide GFWW nutrition messages to WIC staff. The Education and Training Coordinator disseminates lesson plans and intervention tools to the local WIC agencies, facilitates the quarterly NEFG meetings, and addresses questions and concerns that come from the local staff. The role of the Director of Nutrition, Education, and Training Division is administrative; she is responsible for the operational adjustment funds. Program Consultants, as well as the NEFG members, channel questions and input about nutrition education between the state and local staff. The State WIC Director sees himself as a cheerleader for the campaign. He participates in nutrition education trainings, often providing opening remarks to show top management support of local nutrition education efforts. His

⁵ EFNEP is a U.S. Department of Agriculture (USDA) program that helps those with limited resources acquire the knowledge, skills, attitudes, and changed behavior necessary for nutritionally sound diets. Implemented at the local level, EFNEP delivers services through group classes, one-on-one teaching, mailings, and mass media. EFNEP often collaborates with local food stamp and WIC programs to enhance community nutrition education efforts.

⁶ Turning Point is a national initiative of the W.K. Kellogg and Robert Wood Johnson Foundations to transform and strengthen public health infrastructures. Turning Point starts at the local level to generate community support and participation in public health goal setting and action. In Oklahoma, Cherokee, Tulsa, and Texas counties were awarded Turning Point grants.

responsibilities are similar to those in the planning phases of the initiative—providing support and resources so that the initiative can move forward.

Non-nutritionists can teach general nutrition education classes if there is no nutritionist available or if the nutritionist has designated a non-nutritionist to teach. The staff person teaching a class must be either a nurse or Certified WIC Nutrition Technician (CWNT).

The NEFG is made up of 13 WIC nutritionists, nurses, and other staff members representing county health departments and independent clinics across the state. The mission of the NEFG is to “serve as an advisory and sounding board in the development and implementation of nutrition education and training initiatives to enhance and promote quality service provided to the WIC participant.” The first NEFG meeting took place at the first Nutrition Educators Seminar in February 2002. The NEFG holds quarterly meetings at the state agency office in Oklahoma City. Program Consultants were charged with identifying staff members from their region to serve on the NEFG.

Participation in the NEFG does not affect members’ responsibilities in the clinics. NEFG members know of the meeting schedule far enough in advance so that they can plan accordingly. The meetings are typically from 10 A.M. to 2 P.M. on Fridays, a day when staff members have set aside time for office work. The meetings are productive, and NEFG members do not usually leave with tasks to accomplish afterward, unless they volunteer to do so. Typically, the Education and Training Coordinator takes on the follow-up tasks and write-up responsibilities.

Training and Quality Assurance. The state held its first WIC Nutrition Educators Seminar in February 2002, and the second one in February 2003. These annual seminars in Oklahoma City began, in part, as a memorial to Laura K. Savage, the Nutrition Education Coordinator who was killed in a car accident while on a site visit at a local agency. During these two-day sessions, state WIC officials bring local staff members together and communicate Oklahoma’s nutrition education goals for the upcoming year. WIC nutrition educators attend the seminars, including WIC nutritionists, nurses, and CWNTs. While attendance is not mandatory, a majority of agencies send at least one staff member, and approximately 150 participants attend the seminars each year. In 2004, clerks will also be invited to the seminar.

The Nutrition Educators Seminar includes a poster session so that local staff members can share best practices in nutrition education. The winner of this poster session, receiving the Laura K. Savage Creativity Award in Nutrition Education, then competes in the poster session at the National WIC Association meeting. The NEFG assists the state staff in identifying training needs and potential topics that should be addressed. Moreover, the seminar provides an opportunity to introduce and demonstrate new lesson plans. Motivational speakers and presentations to increase general knowledge are also included. The trainers for the event include outside experts, county nutritionists, Program Consultants, and state-level program officials.

The first Nutrition Educators Seminar in 2002 included teaching WIC nutritionists and other relevant staff members about the GFWW campaign’s goals, intervention methods and tools, and

the stages of change model.⁷ The guest speaker discussed childhood obesity. In 2003, a child development instructor and author of *Baby Play & Learn* and *Toddler Play & Learn* discussed the stages of infant and toddler development. Staff learned how they and parents or caregivers could incorporate books, play, and physical activities into on-site nutritional counseling and in the home.

The strengths of the Nutrition Educators Seminar include the opportunity to bring all staff members together, which can lead to greater consistency across the state. The seminar brings in quality speakers that are nationally recognized rather than just relying on state WIC staff. The training energizes and motivates staff members to try new things and share ideas, and it provides the opportunity to network with peers across the state. The training also tries to address staff member attitudes, morale, and customer service. Local staff members point out that the demonstrations, time for questions, networking, poster sessions, and the high quality of speakers are valuable. They also appreciate the State WIC Director's opening remarks that show top administration support.

There are several challenges in attracting staff members to this training event. It is difficult to close the WIC clinics for such a long time; staff members need significant advance notice so that they can plan accordingly. Some county administrators may not send staff members because of fears of losing too much clinic time. Travel can be a challenge for staff members who do not live near Oklahoma City, and the time commitment can be a challenge for participants with children.

In addition to the Nutrition Educators Seminar, the CWNTs receive training and program updates through video teleconferences, memorandums, and the CWNT Online Training Program.⁸ A supervising nutritionist trains CWNTs using the online training curriculum. CWNTs also observe other CWNTs and nutritionists facilitating nutrition education classes. The nutritionist in the local agency and/or the Program Consultant will then observe and provide feedback to CWNTs until they are ready to teach on their own.

To assure the quality of the many GFWW activities, the state WIC office asks a nutritionist from each WIC site to complete a Nutrition Education Plan for the upcoming year. Program

⁷ The stages of change model is based on the premise that behavior, and consequently behavior change, is a dynamic process unfolding over time in five predictable stages: (1) precontemplation, (2) contemplation, (3) preparation, (4) action, and (5) maintenance. Precontemplation represents the stage where an individual has no interest in making changes within the next 6 months. Contemplation is when the individual is thinking about making changes within the next 6 months. The preparation stage is when the individual plans on making changes in the immediate future (1 month) and may have had some behavior change in the past year. In the action stage, the individual has made a specific overt change within the past 6 months and is becoming more consistent with it. In maintenance, the individual has maintained a new behavior for more than 6 months and is working to prevent relapse.

⁸ The CWNT Online Training Program is an online training tool for CWNTs that allows staff members to train at their own pace without having to leave the clinic.

Consultants review the Nutrition Education Plan. It details a tentative schedule of classes, lesson plans that are going to be used, the staff members who will be facilitating the classes, certification codes, and how the clerks will know how to schedule participants. The staff members can use lesson plans distributed at the Nutrition Educators Seminars or developed in previous years and approved by the state. Any lesson plans that are included in the Nutrition Education Plan that were developed by a local staff member or another state must be approved by the Program Consultant before being implemented.

In addition, the eight Program Consultants monitor activities in their regions by observing nutrition education classes. These observations are a required part of the bi-annual clinic review. The state staff also communicates the initiative's parameters during the Nutrition Educators Seminar. Distance education offerings include a videoconference on a quarterly basis called "What's Up With WIC" that communicates policy changes and other items of interest and that helps keep everyone on the same page. Furthermore, local WIC nutritionists stay abreast of what is going on in the classes facilitated by CWNTs since the CWNTs are under their licensure. It is possible that CWNTs stray from the lesson plan, but it is unclear as to how often this occurs because the CWNTs are not monitored regularly. However, when it is clear that someone is being inaccurate or straying from the lesson, nutritionists make sure the individual gets back on track.

Record Keeping and Data Systems. There has been no change or addition to the record keeping or data systems as a result of GFWW. However, program officials intend to add questions about physical activity to the certification process soon.

Funding. Nutrition ranked number eight in fiscal years (FYs) 2003 and 2004 for the OSDH Budget Request Priorities. Nutrition was not ranked in the top 10 in FY 2000, 2001, or 2002, indicating the increased emphasis on nutrition in the state. Funding for GFWW comes from the yearly operational adjustment dollars. The initiative was allocated one percent of the total WIC budget (\$50,121,046), or \$501,210 in FY 2003. Nutrition Services and Administration (NSA) funds are used for state staff time spent on GFWW. For lesson plans involving food, local staff members use their own money to purchase the food or ask a local grocery store for a donation.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. Overall, GFWW has been a well-received campaign among clients and staff members. According to the Director of Nutrition, Education, and Training Division, GFWW's greatest success is the fact that the initiative tries to make nutrition education fun. Much of the success stems from the clinics having ownership of their own nutrition education efforts. The variation and flexibility at the local level allows staff members to meet the specific needs of clients. The intervention tools allow learning to continue at home and encourage participants to return. In addition, the Kids Club nutrition education classes provide services directly to the children. The state and local staff have identified secondary outcomes of the campaign, including getting *families* more physically active and eating healthier diets, and helping *families* work with children early in their development to promote lifestyle changes. The initiative provides an affordable and doable means of achieving these outcomes in the WIC population.

From a quantitative analysis standpoint, the program officials need to reconsider how to evaluate their efforts. In the planning stage, they decided to measure nutrition educator knowledge and skill. Therefore, at the Nutrition Educators Seminar in 2002, a survey was distributed to staff members as a means of evaluating GFWW and other nutrition education efforts. The survey first asked about participant satisfaction with the training. The survey then inquired about the usefulness of the presented topics and asked clients if they were already applying the information presented in the topics prior to the training. The topics the survey covered were WIC clients' readiness to change, putting stages of change models into practice, connecting with WIC clients, adult learning, getting WIC clients to participate, and making nutrition education fun. The survey responses were intended to be matched in a post-survey, but there was no need to conduct a post-survey since the responses indicated that there was no room for improvement. Staff rated the topics as useful and claimed to be regularly applying the information. Currently, they are considering using body mass index as a means of measuring program impact.

The participation and "re-show" rates for classes have increased. Based on informal feedback, clients have been receptive and positive about WIC's nutrition education efforts. However, because GFWW is so integrated into the WIC culture, clients do not necessarily see a distinction between WIC and GFWW. Clients appreciate the intervention tools and books and comment that it is worthwhile to come to the classes just for them. Caregivers often leave classes with an idea that they want to try, and children enjoy coming to the health department because it is seen as a fun place rather than a place to receive shots. The Kids Club is very well received; however, some caregivers are hesitant or resistant to the physical activity classes because they believe this is WIC's way of saying their child is "fat" or "heavy."

GFWW has made the nutrition classes more fun and enjoyable for staff members. Program Consultants see that staff members are more excited, satisfied, and motivated in their work, in part because they have more resources to work with. The FISH! Philosophy⁹ of promoting a more supportive and energized place to work "fits into everything that [we are] doing with GFWW." In addition, many staff members have reevaluated their own lifestyles and initiated health behavior changes so that they "walk the talk." Finally, the NEFG members, who feel empowered and valued by the state, bring the local perspective to the campaign and help local staff members buy in to the initiative, both of which have a tremendous impact.

Key Challenges. At the clinic level, it can be a challenge for nutrition educators to do nutrition education in a way that is different from what they are used to or comfortable with. Some nutrition educators are more comfortable one-on-one than in a class setting. Others struggle in teaching a wide age range of children or in being flexible enough to handle the unexpected. The time needed for class preparation to coordinate the intervention tools and

⁹ While not an integral part of the GFWW initiative, state officials introduced the FISH! Philosophy at the WIC Nutrition Educators Seminar. The goal is to improve customer service for clients by improving the work environment for staff. Seminar organizers screened the FISH! video, a nationally known tool that demonstrates the importance of having fun at work and how this can improve the services that the organization provides.

materials with a particular lesson plan can be more extensive than the time needed to simply “show up” with handouts. The Nutrition Educators Seminar tries to address these barriers by providing breakout sessions where staff members can share their concerns and ideas. In addition, some clinics have indoor and outdoor space limitations, making classroom activities, outdoor play, and intervention tool storage difficult. Space limitations are exacerbated as the class show and “re-show” rates increase as clients have more fun with nutrition education. This increase in participation is desirable, but overcrowding requires staff members to quickly adapt to last-minute space limitations.

OSDH provides the resources and support necessary for GFWW to be in the clinics. Getting support from these internal financial advisers and leaders is a challenge because they are not responsible for the success of the initiative, but will be responsible for the failure if they do not permit the program to move forward with adequate resources. Along similar lines, communication between state staff and local nutrition educators can also be a challenge. More specifically, the state tries to make it clear that the intervention tools should only be distributed as part of a nutrition education class, but some local staff members do not follow these instructions consistently, thinking of the tools as “freebies” or “incentives” rather than tools that are incorporated into a lesson to enhance learning. Appropriate intervention tool distribution is addressed at the Nutrition Educators Seminar and through internal memorandums.

The Nutrition Education Plans and Program Consultant site visits provide some quality assurance over nutrition education, but because efforts are not monitored regularly, there are concerns about local staff members having so much freedom that they lack consistency. Because the state has no intention of “policing” GFWW efforts, quality assurance is difficult. The Program Consultants are not direct supervisors of local staff, so they can only make suggestions. Variation and flexibility at the local level also add to the challenge of coordinating a statewide training that will meet everyone’s needs. Along similar lines, it is a challenge to develop lesson plans and select intervention tools that will be widely accepted and used appropriately.

Lessons Learned. Program officials believe they are doing something that works. They are using a client-centered, simple, back-to-the-basics approach. Other agencies can successfully implement GFWW with this in mind, even if they do not replicate all of the elements. It is critical to present nutrition education in an enjoyable, as well as informative, way so that WIC participants will want to come to the classes. The program officials also suggest collaborating with sister agencies, such as child nutrition and food stamps, to promote physical activity and healthy eating so that clients are receiving a consistent message. Finding a means to measure success is important as well, possibly by bringing in a statistician during the planning phase. The Director of Nutrition, Education, and Training Division suggests an evaluation strategy that documents nutrition education success as well as body mass index.

The initial kickoff must include everyone so that there is a clear understanding of the initiative’s goals. Moreover, local staff members need clear, repeated communication regarding the appropriate distribution of intervention tools. To prevent misuse, it is helpful to hold training on new intervention tools and lesson plans before they are used. During this time, it is important to have staff members model lesson plans so that those in attendance can learn by example. It is also essential to conduct a needs assessment to identify client needs and interests, as well as the needs of the local staff. An NEFG is an excellent way to collect ideas from the local level and weave them into a statewide nutrition plan. Ideas can be shared with other parts of the state, yet

local agencies are encouraged to be creative and identify or design lesson plans that work for their specific clients.

At the clinics, local staff members need, and want, to make purchasing decisions for their intervention tools because they know what works and does not work with their clients. Program officials in Oklahoma recognize this and no longer recommend having an annual drop shipment of materials. The local staff members would like to see even more intervention tools so they have a greater assortment and variety available for distribution. Finally, local staff members suggest designing lesson plans for one-person delivery that last no longer than 20 minutes.

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OBESITY PREVENTION MODULES¹⁰ PENNSYLVANIA

OVERVIEW

Location: Pennsylvania

Start Date: The modules were developed in 1999–2000, and made available to local Nutrition Education Coordinators in June 2000, with the understanding they would train their staff over a two-year period.

Target Population: First-level: WIC staff who do nutrition education—Second level: Parents of low-risk children age 2 or older

Purpose: Provide staff with nutrition education materials and methods targeted at behavior changes that will prevent or reduce childhood obesity.

Services: Materials include guidance for local Nutrition Education Coordinators in how to train staff to work with parents, lesson plans, and handouts to review with parents for each topic.

Funding: Regular WIC nutrition services funding.

Why Program Was Chosen: This program is an example of a comprehensive, yet realistic, obesity prevention initiative, and several other states have already adapted its materials.

Key Challenges: Local staff sometimes feel it is difficult to cover the modules in the limited time they have with clients. It has also been challenging for some staff to understand that the modules are preventive materials that target all parents, not just parents of those already overweight. State agency staff regretted that funds were not available for centralized training.

BACKGROUND

State WIC Program Background. Pennsylvania's WIC program has 25 local agencies serving 67 counties. Throughout the state, there are 348 active Competent Professional Authorities (CPAs), including nutritionists and other health professionals and trained paraprofessionals, who can evaluate the nutritional risk status of WIC clients. The state's caseload has generally been between 230,000 and 240,000.

¹⁰ Telephone interview, April 9, 2003.

Although Pennsylvania has several large metropolitan areas, much of the state is rural, and WIC clients in rural areas often find transportation to be their major barrier to receiving services. State staff note that people in the rural areas tend to feel decisions about their personal lives are private matters, so are sometimes not receptive to discussion of issues such as breast-feeding. State WIC staff also perceive support from the medical community as lacking in some cases, particularly for addressing child obesity, but hope that will change as the issue receives more national attention.

Program History and Objectives. In 1999, nutrition educators at the state WIC agency recognized the need to do something about the childhood obesity problem. They believed that WIC's role would be more beneficial if it had a preventive focus rather than a focus on interventions after weight problems had started. They also saw the need to give people more concrete suggestions on how to make changes in their behavior. Obesity prevention was a state-level initiative because state staff realized that local nutrition educators did not have time to develop obesity prevention materials on their own.

The state Nutrition Education Coordinator at that time developed most of the materials with input from other state-level WIC Public Health Nutrition Consultants and local agency Nutrition Education Coordinators. The current Chief of Nutrition Services wrote the final two modules after she started working at the state agency in November 2000. The Nutrition Education Coordinator had previously developed nutrition education modules on other subjects for local agencies, and she drew on this experience.

The state Nutrition Education Coordinator started by devising a set of survey questions for parents, then developed the modules around them (one module for each question). She used the basic format of previous modules, but the obesity prevention modules were more detailed. She also developed one or more handouts to be given to the parents for each module, as well as materials on how to train local staff to use the modules.

In June 2000, the Nutrition Education Coordinators at each local agency were given the modules and told that, over the next two years, they were responsible for training their local agency's staff on how to use them.

Target Population. The modules target parents of WIC children age 2 or older. However, they are not to be used if the child has other, more pressing risks that need to be discussed during nutrition education contacts. Because the modules are meant to be preventive, they are intended for use with all children, not just those who are already overweight or at risk of becoming overweight. The training materials include a discussion of how to adapt the modules if the child is already overweight or at risk of becoming so.

PROFILE OF INNOVATIVE PROGRAM

Content of Modules. Pennsylvania WIC developed seven Obesity Prevention Modules (see box) and a document entitled "Preventing Childhood Obesity—Introduction," which provides a general overview of the obesity issue and training materials for staff on how to discuss their child's growth with parents of overweight children.

Materials for each module include a curriculum for training local WIC staff (for local Nutrition Education Coordinators to use); a “Staff Reference Sheet,” which provides staff with background information on the topic discussed in the module; the module itself—a nutrition education lesson plan to discuss with parents; and one or more handouts to give the parents. Each module is built around a question on the Nutrition Education Plan Survey, which the parent is asked as a way to start the discussion. The eight-question survey was kept in the child’s chart as a way to document use of the modules, but now is documented online in the state WIC data system. The specific questions are not asked all at once—each question is asked in preparation for the relevant lesson plan.

The training materials encourage staff to ask open-ended questions, provide interactive counseling, and give clients ideas about how to change their behavior. Training for local staff involves reviewing the nutritional basis for each recommendation (also covered in the “Staff Reference Sheet”), reviewing the module and handouts, and observing and practicing role-playing presentation of the material—both as the nutritionist and the participant.

For example, training for the module on “Eating More Fruits and Vegetables” first involves review of the food guide pyramid and the reasons for eating at least five fruits and vegetables per day. Each staff member is asked to complete a food frequency questionnaire on their own diet and to discuss barriers they face in reaching the goal of five a day. Next, the module and handouts are reviewed and the group discusses issues such as what to do if they think the participant is not answering the questions honestly. The trainer then asks a member of the audience to role-play the participant and she presents the module to them. Afterward, the

Module Number	Topic	Handouts
1	Increasing Physical Activity/Reducing TV Viewing	Get Them Moving! Children and TV Easy Ways to Get Active
2	Teaching Children Positive Attitudes About Food	Teaching Your Child to <i>Enjoy</i> Mealtime!
3	Choosing Healthy Snacks	Snacks for Kids
4	Limiting Juice Intake	Hey Mom, I’m Thirsty
5	Choosing Fast Foods Wisely	Happy Meal, Healthy Child? Fast Food Restaurant Guide
6	Increasing Fruits and Vegetables	Hey Mom, Give Me Five! Color Your Plate to Health
7	Reducing Fat Intake	The Facts on Fat Fats in Foods Cut Out Fats to Cut Back Calories Changing Recipes to Reduce Fats

audience is asked to evaluate what was effective about the contact and what was less effective. Finally, the group divides up and does more role-playing, taking turns being the nutritionist and the participant. When conducting local training, the training curriculum is sometimes copied and given to WIC staff, but sometimes the Nutrition Education Coordinator hands out only the staff reference sheets.

Each module involves asking parents open-ended questions, then following up with relevant information. Followup may involve changing parents' ideas where not correct or addressing barriers to change that they identify. Each module ends with the question, "Which ideas will you try?" The participant's response is noted in the chart for future followup.

Each module is accompanied by handouts. For example, the module on fruits and vegetables has two handouts: "Hey Mom, Give Me Five!" addresses barriers to eating more fruits and vegetables with concrete suggestions. "Color Your Plate to Health!" presents the idea of eating fruits and vegetables from a variety of color groups to achieve good nutrition. Parent handouts are available in English and Spanish.

Training in, and Implementation of, the Modules. As noted, local Nutrition Education Coordinators were expected to use the modules and accompanying materials to train their staff. The trainers had a lot of flexibility in how they did the training. Usually, they held in-service trainings or did the module training during a staff meeting. Training for one module took about 1.5 to 2 hours. The state agency recommended that all staff be trained on the modules, because sometimes clients talk to clerical staff or someone other than the staff responsible for nutrition education. However, it is the professional and paraprofessional nutrition education staff who use the modules with clients.

This flexibility resulted in some initial confusion in how to schedule the training and the use of the different modules. Some agencies decided to train their staff on one module at a time in staff meetings. Staff used the module they had just learned for the next three months, then were trained to use another module and used it for three months, and so on. Other agencies chose to train staff on two or three modules at a time, while others were not successful even in starting the training process. Thus, initial implementation was uneven. At the end of the two-year period, some agencies were adept at using the modules, while others were not, and there was a lot of variability in the ways that the materials were being used.

Related Staff Training. There was no statewide training on implementation of the modules. However, Pennsylvania WIC has held several related trainings in the past few years as part of its effort to (1) shift the focus of nutrition education contacts from information dissemination to behavior change, and (2) target obesity and overweight prevention.

In 2001, Pennsylvania WIC held a statewide Nutrition Services meeting for WIC staff. The meeting focused on training staff in overweight and obesity issues, including the prevalence of overweight, and on the importance of physical activity. The meeting's keynote speaker was Bettylou Sherry of the Centers for Disease Control and Prevention (CDC). She used data from the Pediatric Nutrition Surveillance System, which is largely collected by WIC clinics, to describe the increasing problem of obesity nationally and in Pennsylvania. Additional sessions were offered on anticipatory guidance materials, social marketing, and studies related to early

childhood eating habits and feeding practices. Approximately one-third to one-half of WIC professional staff attended the conference.

In 2002, the Chief of Nutrition Services held regional in-services with local agencies and introduced the ideas of anticipatory guidance, facilitated group discussion, and motivational interviewing, to help staff figure out how they could make these techniques work for them. She discussed with staff their lack of time with clients and how they could use at least some of the techniques even when time is limited. Given that they can only spend a short time with clients, she discussed with staff how to determine the appropriate times to bring up the topic of weight and use the modules.

Refinements to Implementation of the Modules in 2003. For fiscal year (FY) 2003, the state set as a goal that local agency staff provide to the state a protocol to ensure the continued use of and continued training on the modules. The protocol was to be part of the annual nutrition education plans submitted by each agency. The state Nutrition Education Coordinator is currently evaluating the nutrition education plans submitted this year, so state staff cannot yet assess how this has worked out. The state agency will either approve the plans or ask for revisions.

In addition, state WIC staff developed new materials for local agencies related to the modules. First, they provided quizzes that can be used to assess staff's competency in each of the modules. A quiz might ask, for example, what a WIC staff member would do to approach a parent with an overweight child. The focus of the quizzes is less on knowing the facts presented in the module than on staff's competency in handling situations with clients. The state agency also developed a checklist to help assess whether a contact with a client is effective or not. This tool is sometimes used during performance reviews to ask staff whether they are using specific techniques when they meet with clients. For example, the checklist includes introducing oneself to the client and making eye contact.

Coordination with Other Agencies. Pennsylvania WIC partners with other health and advocacy organizations around obesity and overweight education and prevention, although not the modules specifically. However, as word about the modules has spread, other organizations in Pennsylvania involved in nutrition education have asked state WIC staff to give presentations on the modules. Cooperative Extension asked the former Chief of Nutrition Services to speak about the modules, and the current Chief of Nutrition Services recently spoke about them at a Maternal and Child Health Advisory Panel meeting. The former Nutrition Education Coordinator also provided the modules to the Maternal and Child Health Consultants who work out of Pennsylvania's State Health Centers.

In addition, the modules are available on the WIC Works Website, and several other states are adapting them for their use (see more discussion below).

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. In Pennsylvania, the Nutrition Services Section, which supervises WIC, is made up of the Chief and four Public Health Nutrition Consultants. One of these consultants now functions as the State Breast-Feeding Coordinator, one is

designated as the State Nutrition Education Coordinator, and the others have other areas of expertise. The Nutrition Education Coordinator and the Nutrition Services Chief are the primary staff members who worked on developing the modules, and the Nutrition Services Chief is the main person monitoring implementation of the modules and providing technical assistance to local agencies as needed.

In addition, the local agency Nutrition Education Coordinators have contributed to this process. In particular, several local agency Nutrition Education Coordinators participate as members of the Nutrition Education Committee, which holds monthly conference calls to strategize statewide initiatives.

Record Keeping and Quality Control. Nutrition educators document use of the modules in clients' charts, using either the survey or the Nutrition Education Plan form that was used before the implementation of the modules. Nutrition education contacts typically occur every three months. If a child stays in WIC, each child's caregiver should be exposed to all of the modules eventually.

Responsibility for quality control is primarily at the local level. The checklists and quizzes for the local agencies should help with this process. At the same time, as in other states, the four consultants conduct annual program reviews. Each fiscal year, 13 local agencies are reviewed, and the 2 largest agencies have clinics reviewed each year. An integral part of the reviews is to observe nutrition education delivery in the clinics, including the implementation of the Obesity Prevention Modules.

Funding. This initiative did not receive any special funding; it was paid for out of WIC Nutrition Services and Administration funds.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. The Obesity Prevention Modules address an area previously not targeted by WIC with a set of clear messages for parents of children age 2 and older, and specific suggestions for behavior change in response to each message. At the same time, they present the message in a client-centered discussion format.

Although implementation has been challenging, the state Chief of Nutrition Services feels that the local agencies have gone further than she originally expected in adopting the modules and using them consistently. Overall, staff have reacted favorably to the new approach, as they feel that the modules make it easier for them to target what they want to talk about with WIC clients. After some initial resistance, they seem to find a more behavior-focused approach rewarding.

As noted above, the modules have been posted on the WIC Works Web site, and the state WIC agency has received positive feedback. Several other states are adapting the materials for their use. Hawaii, for example, will be using the modules to train staff at their statewide conference, and then will implement the modules in nutrition education contacts. Florida took the lessons of the modules, turned them into flip charts, and added some graphics. The state now uses them in its clinics.

Key Challenges. A major challenge for staff in implementing the modules is the limited time they have to spend with clients—10 to 15 minutes at most. The state staff tried to be sensitive to this in developing the modules and working with local staff on implementation.

Another challenge has been getting local staff to understand this is a preventive program for all children, not an intervention for those who are overweight. Staff turnover is also a concern in Pennsylvania, as staff may leave by the time they are trained in all the modules and comfortable using them, and then the agency needs to start over. Although it would be helpful for all staff to have the same understanding of the goals of the program, this has been a challenge because Pennsylvania WIC did not have the resources to do regional training sessions.

State staff hear that client reactions to the new approach have been mixed. Some clients fear that WIC staff are going to “get on their case” about their child being overweight. However, some clients feel that the information in the modules is more useful than nutrition education they received from WIC in the past. Although staff are specifically trained in how to deal tactfully with parents of overweight children, some parents will still be concerned about what they perceive as criticism.

Finally, Pennsylvania WIC introduced a new data system in 2002. This distracted staff attention from implementation of the modules for some time.

Lessons Learned. This approach is promising in adopting a small number of very specific messages, offering interventions that can be completed in short amounts of time, and helping staff develop skills for more interactive counseling.

In retrospect, state staff wish they had had the resources to do regional staff trainings. Another option could have been to do a centralized “train the trainer” session for the Nutrition Education Coordinators. In addition, the state agency could have avoided some initial confusion by providing more guidance about scheduling the introduction of the modules, but it wanted to be flexible, as local agencies face very different constraints.

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To obtain materials:

http://www.nal.usda.gov/wicworks/Sharing_Center/statedev_PAmodules.html

MOOOVE TO LOWFAT OR FAT FREE MILK CAMPAIGN¹¹ FLORIDA

OVERVIEW

Location: Statewide

Start Date: March 2002

Target Population: All adults and children over 2 years old in Florida.

Purpose: The statewide nutrition education initiative aimed to help reduce the incidence of overweight and obesity in Florida by encouraging all adults and children over 2 years old to drink lowfat (1 percent) or fat free (skim) milk.

Services: Specialized educational and outreach strategies that convey the benefits of lowfat and fat free milk

Funding: The campaign used Nutrition Services and Administration (NSA) dollars; total WIC expenses were about \$12,000, exclusive of staff time and other in-kind contributions.

Why Program Was Chosen: The Mooove to Lowfat or Fat Free Milk Campaign was the first Florida-wide nutrition education initiative that encompassed multiple state agencies. It is a broad-based social marketing campaign that uses creative approaches delivered through a wide range of organizations. Other WIC agencies have mounted similar campaigns, but the extent of coordination with other agencies in Florida may be unique. Furthermore, for those WIC agencies not familiar with the campaign, the materials could easily be adopted at little cost. Moreover, it is an example of an obesity prevention intervention with a focused behavior change message that is very salient in the context of the WIC food package.

Key Challenges: The WIC Bureau was unable to gain active support from local grocery stores in promoting the campaign's message, despite approval from store executives. Moreover, program staff were surprised by the myths that WIC participants believed about milk and its nutritional content.

¹¹ Telephone interview, April 8, 2003.

BACKGROUND

State Characteristics. Florida is the fourth-most-populous state in the country, with 15,982,378 residents. Of those, 65.4 percent are white but not of Hispanic or Latino origin, 16.8 percent are Hispanic or Latino, and 14.6 percent are African American. Almost a quarter of the population over 5 years of age speak a language other than English at home. In 2002, 13.0 percent of the state lived below the federal poverty line (American Community Survey 2002). According to the U.S. Department of Agriculture (USDA), 19.6 percent of all Florida children under 18 are overweight, which is 3.5 percentage points higher than the national average for children (Community Nutrition Research Group 2003).

WIC Program Background. At present, 42 WIC agencies serve 67 counties statewide. The average number of participants per month for fiscal year 2003 was more than 350,000.

The Mooove Campaign was the first of three interagency nutrition education initiatives. For the second year's campaign, the Bureau of WIC and Nutrition Services, in collaboration with two other bureaus of the Department of Health (Child Nutrition Programs and Chronic Disease Prevention), launched a statewide nutrition education campaign in March 2003. The theme for 2003 is *3 + 2 = 5 A Day the Florida Way!* The 2004 theme will be Healthful Nutrition (with an emphasis on healthy snacks) and Physical Activity.

Program History and Objectives. The Mooove to Lowfat or Fat Free Milk Campaign (Mooove Campaign) began as a WIC initiative, was then adopted by another Department of Health group (the Bureau of Child Nutrition Programs), and gradually expanded into a state interagency effort. Many of its materials and lesson plans were adapted from the "1% or Less Campaign," launched by the Center for Science in the Public Interest (CSPI) in 1996. The Mooove Campaign encourages Florida adults and children over 2 years old to drink lowfat or fat free milk to help reduce the incidence of overweight and obesity. According to data from the Behavioral Risk Factor Surveillance System (BFRSS) [www.doh.state.fl.us/family/obesity], nearly 1 in 5 Florida residents were obese in 2002, whereas only 1 in 10 were obese in 1986. State health officials hope that this initiative will influence people to drink less-fattening milk, and thus help decrease the incidence of obesity.

In 2001, the Bureau of WIC and Nutrition Services of the Florida Department of Health received state funds for a limited marketing effort to promote good nutrition. WIC and Nutrition staff decided to focus on drinking healthier milk and so enlisted the Department of Health's full-time graphic artist to design educational materials to promote this message. She created a cow cartoon figure that became the "mascot," or logo, for the campaign and designed a colorful and informative display. The Bureau used the funds to put together two displays that were lent to local WIC agencies that chose to promote the lowfat or fat free milk message. Each display contained a banner, as well as instructions for conducting milk taste tests, an instructional flip chart, and promotional stickers. In addition, cow print tablecloths and aprons were included with each display. At this stage, the Mooove Campaign operated on a very small scale. The two displays were offered to all local WIC agencies to borrow, and seven local WIC agencies used one for three months at a time. The Bureau received positive feedback about the display and its accompanying materials. Moreover, the Bureau of Child Nutrition Programs used the cow logo to design its own materials to launch a Mooove Campaign in all its affiliated day care centers.

The next step toward the statewide Mooove Campaign came from the Florida Interagency Food and Nutrition Committee (FIFNC), a nutrition task force founded more than 20 years ago, which has as its purpose to coordinate efforts to provide effective nutrition, food security, and food safety programs and services to Floridians. FIFNC members are representatives from a variety of state agencies whose missions and goals are related to providing effective food and nutrition services.¹² Over the years, this committee has provided a valuable mechanism for coordination, advocacy, and outreach activities for food and nutrition services in Florida.

The FIFNC concluded that the cow mascot/logo would be an effective marketing tool to use for promotional materials for an interagency campaign, and decided to launch the statewide nutrition education initiative—Mooove to Lowfat or Fat Free Milk—in March 2002 (March is National Nutrition Month).

Target Population. The statewide initiative targeted all adults and children 2 years of age and older. Although the Mooove Campaign began with a set of publicity materials that were originally developed for the WIC program, these materials were soon adapted to meet the needs of the other targeted groups. For example, the Department of Education marketed lowfat and fat free milk in all public schools—kindergarten through 12th grade—with a specially designed stand-alone “skating cow” display, which was placed near the milk section of school cafeterias throughout Florida. The Department of Elder Affairs ensured that its senior centers, congregate meal sites, adult day care centers, and area aging agencies were supplied with the colorful poster designed for the campaign.

PROFILE OF INNOVATIVE PROGRAM

Services Provided in WIC. The FIFNC developed nutrition education materials and activities that local WIC staff could offer in clinics to raise awareness about the benefits of lowfat and fat free milk. Generally, services promoting the Mooove messages and activities took place in WIC waiting rooms and nutrition education classes. The campaign was designed to last one year, and activities could be spread out over the year so that the nutritional messages would be continuously reinforced in fun, educational ways.

All WIC sites (along with other agencies and organizations affiliated with the FIFNC) were provided with the campaign kit, which contains a press release, lesson plans for all ages, taste test instructions, consumer handouts, an article to be used in professional newsletters, and evaluation forms. The most popular item developed for the campaign was the poster, which was

¹² FIFNC agencies that participated in the Mooove Campaign were the Florida Department of Education; the Florida Department of Elders Affairs; the Florida Department of Health; the Florida Department of Children and Families; the University of Florida Institute of Food and Agricultural Sciences Extension Programs; the U.S. Food and Drug Administration (Florida District, Southeast Region); and the Suwannee River Area Health Education Center. The only FIFNC agency that did not participate was the Florida Dairy Council, which could not endorse the initiative since its policy is not to promote one type of milk over another.

available in both English and Spanish. In addition, the state WIC office developed additional materials, which included a Mooove display, bulletin boards, buttons, grocery store placards, “envelopes” to hold WIC checks, and tent cards. In summer 2002, a tabletop display with test tubes depicting the fat amounts in each type of milk was distributed to all WIC nutritionists to use with clients.

The WIC Bureau also developed newsletters in English and Spanish and suggested activities that clinics could offer. WIC clinics used a variety of these activities, and they were popular with both staff and clients. For example, WIC staff mimicked the milk mustaches from the Got Milk?TM ad campaign, took photographs of everyone, and displayed them in the waiting room during the first few months of the initiative. Other activities in WIC clinics included children’s art contests, recipe contests, door prize contests, and the setting up of displays demonstrating the importance of calcium.¹³ Clinics also provided taste tests to staff and clients, which were very successful in changing attitudes and opinions about lowfat and fat free milk.¹⁴

The degree to which local agencies implemented the Mooove Campaign varied from agency to agency. The WIC public health nutrition consultant noted that one county health department WIC coordinator “went all out,” incorporating the activities described above as well as making cow print aprons for the entire staff, painting cow prints on tennis shoes, and wearing cow earrings. The coordinator conducted ongoing milk taste tests with clients, and also developed a teaching tool display of milk container lids showing the lid colors that are used on lowfat and fat free containers in every grocery store in the county.

Participation. While the Mooove Campaign was a statewide initiative, state WIC officials did not mandate that all agencies participate. Rather, local staff could incorporate as much or as little of the materials into their routine services as they chose. However, the WIC health educator estimated that 90 percent of the 42 local agencies conducted some outreach and nutrition education related to healthier milk choices.

Since the Mooove Campaign targeted multiple audiences, the FIFNC could not determine the number of Floridians that the nutrition messages reached. For example, a WIC client’s clinic may have elected not to use any of the materials, but her child might have attended a day care center that focused on promoting lowfat or fat free milk and had a strong parent education component that encouraged healthy drinking practices at home. As this example illustrates, it is possible that WIC clients were exposed to the promotional materials from multiple sources.

¹³ Staff place chicken bones in glass jars full of vinegar and in separate jars containing water. The bones in vinegar lose calcium in the form of calcium crystals, which causes them to weaken and bend or break easily. After a few weeks, WIC staff dry the bones and show clients that the ones in vinegar became brittle. This activity is borrowed from the National Dairy Council.

¹⁴ The milk taste test is an interactive hands-on experiment that compares whole, reduced-fat (2 percent), lowfat, and fat free milk. Clients are blindfolded and then taste the four different types of milk from small cups, trying to guess which type of milk is in each cup.

Coordination and Collaboration. The Mooove Campaign is very collaborative in nature. For example, the state WIC public health nutrition consultant conferred with a staff member from CSPI about adapting its “1% or Less” materials for WIC’s Mooove Campaign, and the request was approved.

Members of the FIFNC developed the campaign kit. Each agency contributed to the kit in ways that focused on its own clients, but also developed components that could be used by other FIFNC agencies and other programs as well. For example, a professor from the University of Florida developed activities for elderly people and wrote an article that could be submitted to professional newsletters. WIC nutrition consultants developed materials specific to the WIC clinics, but at the same time worked with the Department of Health’s graphic artist to create the cow mascot that was used to identify the entire campaign. They also assisted with the development of the Mooove Website.

Publicity and Outreach Efforts. WIC clinics used a number of promotional materials to convey the message to drink lowfat or fat free milk. Clients were given newsletters that (1) explain the health benefits of drinking lowfat and fat free milk, and (2) present nutritional labels for the four types of milk. In addition, materials presented in nutrition education classes or waiting rooms (see the box on materials) informed clients about the Mooove Campaign and educated them about healthier milk. State officials also used marketing and educational materials at special nutrition awareness events and conferences to promote the campaign. Press releases and an article for professional publications helped disseminate information to the entire community. The Mooove Website makes many of these materials available to other interested agencies. A Mooove display was exhibited at the Food and Nutrition Service (FNS)/USDA Nutrition meeting in Washington, DC, in February 2003 and won a participant award.

Educational and outreach materials are available free on the Florida Department of Health’s Website [www.doh.state.fl.us/family/mooove/milk.html], including:

- Sample newsletter to parents
- Sample press release
- Literature review about the benefits of lowfat and fat free milk
- Article for a professional newsletter
- Lesson plans and activity sheets for preschoolers
- WIC clinic activities
- Milk taste test instructions
- WIC nutrition education newsletter
- Cow graphics
- Mooove Campaign posters in English and Spanish
- Handouts for health fairs and other community events
- Milk-related Websites

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. While the Mooove Campaign fell under the umbrella of the FIFNC and its members jointly developed certain materials, each participating agency assumed responsibility for tailoring the initiative to its programs and clients. While there was no formal training for the Mooove Campaign, the state public health nutrition consultant organized a conference call with all local WIC agencies to inform them about the initiative and to discuss how to implement various activities in their clinics. Local WIC staff did not have to assume any responsibility for producing materials, unless they chose to do something extra for their clients. State officials encouraged local WIC staff to be creative and tailor the campaign to their clients.

Funding. The cost of the educational and outreach materials comprised the majority of expenses associated with the Mooove Campaign. The state-level staff time spent on the initiative was considered an in-kind contribution. A graphic artist from the Florida Department of Health designed the cow mascot and publicity items, and the FIFNC developed the lesson plans and other materials. In addition, the state public health nutrition consultant and a volunteer produced the test tube displays, administrative and support staff were trained to make cow buttons during “down time,” and a secretary assembled the campaign kits.

WIC’s portion of the Mooove Campaign was funded with NSA dollars. Aside from the in-kind contributions of WIC staff for materials development, the state WIC office spent about \$12,000, primarily for the printing costs of the Mooove promotional materials. Total costs to WIC *and* FIFNC were about \$21,000, which once again does not include in-kind contributions from the FIFNC members. State officials consider the Mooove Campaign to be very cost-effective. Assuming that the initiative’s message reached all WIC clients throughout Florida to some degree, costs were pennies per client.

ASSESSMENT AND LESSONS LEARNED

Evaluation and Outcomes. The desired outcomes for the Mooove Campaign were that more Floridians will begin to choose lowfat or fat free milk instead of reduced fat or whole milk. The WIC Bureau wanted to see as many WIC participants as possible engage in healthier behavior by changing their milk-drinking habits.

Initially, state officials did not conduct an evaluation that could examine WIC outcomes in isolation. However, the Mooove Website offered an on-line survey that collected information from FIFNC staff members on Mooove activities that they conducted in their local agencies, feedback and suggestions for future nutrition-related campaigns, and results of taste tests. In addition, clients completed a short survey in which they were asked questions about their milk-drinking habits.

Implementation Successes. The state health educator remarked that the campaign has been successful because “everyone—WIC staff and clients—loves the cow.” (In fact, the cow mascot appeals to all clients, regardless of their age, who are served by FIFNC agencies.) She noted that many activities were visual and hands-on, reinforcing nutrition education in an original and innovative way. These strategies, including use of the chicken bones in vinegar, milk taste tests, and test tubes comparing the different fat content of milk types, effectively conveyed the core

message to clients. Local WIC staff reported that the test tubes with various fat contents and the taste tests were powerful, as was a display that read: “Do you know that these 2 donuts have the same artery-clogging fat content as one glass of whole milk?” “Do you know that 3 pieces of bacon have the same artery-clogging fat content as one glass of whole milk?” State officials observed that these comparisons were a “real eye-opener” for WIC staff and clients.

Local agency staff very much appreciated the fact that state-level FIFNC members developed the entire Mooove campaign kit (including lesson plans, taste test instructions, buttons, and press releases) and clearly explained how to implement the initiative. The materials “were all there for them, ready to go.” Informal feedback revealed that the prepared materials allowed some agencies to do even more than they would have if they had been asked to develop the materials themselves. Another key component for success was administering the taste test to

LOWFAT OR FAT FREE MILK VOUCHERS: A PILOT

As a supplement to the statewide nutrition education initiative, the Florida WIC program decided in September 2002 to pilot test WIC checks that specified only lowfat or fat free milk could be purchased. The Martin County WIC Project was chosen as the pilot county due to its high obesity rates. Specific project goals included (1) reinforcing the Mooove message, (2) determining if retail grocery stores had issues with lowfat milk-only checks, (3) determining the number of clients who chose to continue with the lowfat milk-only checks, (4) determining the acceptability of the checks among clients, (5) determining the number of clients who chose to continue with the lowfat milk-only checks, and (6) monitoring the body mass index (BMI) of the pilot children. The clients in Martin County were given the choice of the new lowfat milk-only checks after they were counseled by the nutritionist. Participation by clients was voluntary. At any point, the WIC client could return to reduced-fat or whole milk, and some did. Ten percent of clients accepted the specialized checks; they received promotional items as incentives, including pens, book marks, literature, and stickers.

The pilot continued until March 2003. Results of the pilot study showed that 80 percent of families who participated will continue to choose the lowfat-milk-only checks, 97 percent encountered no problems using the checks in grocery stores, and 93 reported that stores were adequately stocked with lowfat or fat free milk. Preliminary results of monitoring the BMIs of the pilot children indicated that 38 percent had lower BMIs six months after receiving the lowfatmilk-only checks, 31 percent had no change in their BMIs, and 31 percent had BMIs that increased between 1 and 2 percentage points.¹⁵

¹⁵ In June 2003, the lowfat-milk-only check option was made available statewide. As of August 2003, more than 2,500 low-fat-milk-only food packages had been assigned. In addition, a state WIC office report has been developed that tracks the number of WIC children over 2 years old who are overweight or at risk being so, by county. Figures are collected quarterly.

local WIC staff before administering it to the clients. State officials knew that agencies would promote the Mooove Campaign more effectively if WIC staff believed in the initiative.

Key Challenges. A few operational challenges emerged during the planning phase of the Mooove Campaign. First, the WIC Bureau did not succeed in its efforts to solicit help from the grocery stores in promoting the campaign’s message. State officials obtained permission from all the major grocery chains in Florida to place on their dairy cases a cow placard promoting lowfat or fat free milk. They also sent letters to WIC vendors asking that they display Mooove Campaign placards in their stores for one month. Unfortunately—despite permission from food executives—most stores did not display the placards. While some managers were enthusiastic and posted the placards, the WIC Bureau did not achieve the statewide presence it anticipated in grocery stores. Ideally, state officials would have tracked milk sales by store to see whether sales of lowfat and fat free milk increased because of the placards. It was impossible, however, to obtain price scan reports, since grocery stores are reluctant to divulge proprietary data.

In addition, staff in local agencies were surprised by some nutritional myths that they heard expressed by clients. During the first six months, WIC nutritionists repeatedly heard clients say that reduced-fat milk is the same as lowfat milk. To combat this myth, WIC staff produced tent cards that could be easily displayed on a clerk’s window or counselor’s desk that read, “2% milk is NOT lowfat.” Staff were also surprised that some clients thought they could not use regular WIC checks for milk to buy lowfat or fat free milk. This misconception led the state WIC office to add to WIC checks, under “Health Tips,” the following statement, “For those over the age of 2, choose lowfat or fat free milk—same great taste, just less fat and calories.” The health tips on the checks reinforced the message of the Mooove Campaign and reminded clients that they can use WIC checks to buy lowfat or fat free milk.

Lessons Learned. Overall, the WIC Bureau has been very pleased with the Mooove Campaign. It promoted a targeted nutritional message: choose lowfat or fat free milk to support better health. This simple, clear theme was appealing because various organizations and agencies could easily endorse the mission. The state health educator also stressed that the campaign has begun to dispel some milk myths held by WIC clients, such as considering reduced-fat milk to be the same as lowfat. Further, the cost was quite small. However, data are not really available to track the effects of the program.

Yet despite the campaign’s good reception, state officials wish they had done several things differently. First, they would have reconvened the local agencies after the initial conference call to monitor how the campaign was being implemented at the local level. Such a debriefing would have enabled WIC staff to share ideas and discuss concerns or challenges.

Second, program planners would have approached outreach differently for clients who are lactose-intolerant. As the campaign got under way, WIC staff began to hear staff and clients in this subgroup say that they did not have to be concerned about the different types of milk since they were lactose-intolerant. Unfortunately, the campaign did not address the fact that lactose-reduced milk is also produced in lowfat and fat free forms that could have been promoted just as easily as regular milk. If the Mooove Campaign is reintroduced, this matter will be addressed.

Finally, the nutrition consultant and health educator would have preferred that the Mooove Campaign be a multiyear effort. Even so, although the campaign officially ended in February 2003, most local WIC agencies continue to display posters and tent cards. In addition, WIC clients are still reminded of the milk initiative in a special “health tips” section on their WIC checks. According to the state public health nutrition consultant, many agencies still use the test tube displays as teaching tools, conduct taste tests, and “actively promote lowfat or fat free milk.” Furthermore, the WIC Bureau and the FIFNC plan to reemphasize the milk campaign during the third statewide nutrition education initiative (scheduled to begin in March 2004), which will highlight the benefits of physical activity and healthy snacks. State officials hope that agencies will continue to use the Mooove materials, and that they will reintroduce the cow mascot with future outreach efforts to promote healthy nutrition. Other partners, such as schools and day care centers, also continue to use campaign materials.

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B. PREVENTIVE HEALTH INTERVENTIONS

Adding preventive health interventions or other services to WIC's menu of services has long been controversial, particularly as such mandates have sometimes come without additional funding, which places added strain on the often limited time that WIC staff can spend with clients. In this section, we focus on initiatives that are at the margins of WIC's responsibility and seem appropriate to characterize as "WIC Plus." Furthermore, these initiatives received outside funding and were developed in part outside the WIC program. However, both initiatives offer promising strategies for supplementing WIC and seem worthy of further study (as long as the services have appropriate funding):

- Alabama's program to prevent early childhood caries among WIC children (particularly those age 2 or younger) builds naturally on the connection between infant and toddler feeding practices and early tooth decay. A range of materials have been designed to be useful with minimal staff time. This team effort is an interesting example of collaboration, as WIC worked with the Department of Health's Oral Health Branch and several university researchers.
- At clinics run by Public Health Foundation Enterprises Management Solutions in the Los Angeles area, a demonstration tested both a new method of screening prenatal WIC clients for alcohol use and a brief intervention to use with those who reported drinking alcohol during their pregnancy. Screening and referrals for alcohol abuse are part of WIC's mandate, but intervention arguably is not. This initiative offers a way to reach prenatal clients more effectively, with little or no increase in staff time.

**WIC NUTRITION EDUCATION MODEL FOR THE
PREVENTION OF EARLY CHILDHOOD CARIES^{16,17}
ALABAMA**

OVERVIEW

Location: Statewide

Start Date: October 2002

Target Population: The initiative targets pregnant and postpartum women, infants, and children up to age 5 years enrolled in WIC.

Purpose: To promote good dental practices for WIC families, using a culturally sensitive, low-literacy nutrition education model, and ideally to reduce the rate of early childhood caries (ECC) in Alabama, which before the initiative was 6 percent above the national rate (27 versus 21 percent).

Services: Educational tools, including video, flip chart, tip cards, and posters, are used in group classes or one-on-one sessions. Staff distribute a referral list of dentists who charge fees on a sliding scale and/or accept Medicaid participants. Additional services that fall under the two-year state nutrition education plan include adult and pediatric toothbrushes, toothpaste, and dental floss, along with other incentive items like coloring books, crayons, and stickers that promote good oral health.

Funding: Funding from a U.S. Department of Agriculture (USDA) infrastructure grant¹⁸ and the Alabama Department of Public Health's WIC Division and Oral Health Branch totaled \$160,330. This does not include in-kind personnel and travel expenses.

Why Program Was Chosen: Through a collaborative partnership with the Oral Health Branch, the University of Alabama at Birmingham (UAB) School of Dentistry, and the UAB School of Public Health, the WIC Division incorporated dental health education, an area in which WIC does not traditionally engage, into routine services.

Key Challenges: Logistical problems prevented a planned staff training video from being produced and delayed completion of a video for clients. Local staff wished they had received more training. In addition, lack of dentists who accept Medicaid or offer sliding fees and also serve young children made referrals difficult.

¹⁶ Caries is the medical term for tooth decay, which includes baby-bottle tooth decay.

¹⁷ Telephone interview, April 14, 2003; site visit, June 25-26, 2003.

¹⁸ Infrastructure grants are from a pool of funds allocated by the Secretary of Agriculture to improve WIC infrastructure and for selected other purposes.

BACKGROUND

State Characteristics. In 2000, the population of Alabama was 4,447,100. Whites (71.1 percent) and African Americans (26.0 percent) make up the bulk of state residents. About 16 percent of Alabama's population lived in poverty in 1999, and the median household income was \$34,135.

WIC Program Background. The state WIC program is divided into 11 public health areas. All counties have WIC sites within the county health departments, though a few local private agencies also operate WIC clinics. In May 2003, 26,566 women, 28,057 infants, and 54,156 children were enrolled in WIC, and participation rates were 87.5 percent, 90.1 percent, and 88.2 percent, respectively. Of those enrolled, 52.1 percent were white, and 39.4 percent were African American.¹⁹

Before the WIC Nutrition Education Model for the Prevention of Early Childhood Caries initiative, WIC had engaged in limited dental health education. For the most part, nutritionists talked with clients about the importance of weaning the baby and preventing ECC. To this end, they typically passed out tear-off sheets on caries, pictures of babies suffering from caries, and a weaning pamphlet during one-on-one nutrition education sessions or group classes, as well as referred families to dentists who used a sliding fee scale. Staff targeted dental health education to parents with children who were 9 to 12 months old.

Program History and Objectives. The development of the ECC initiative stemmed from the collaborative efforts of two departments at UAB and the WIC Division and Oral Health Branch under the health department's Bureau of Family Health Services. All four stakeholder groups—the WIC Division, the Oral Health Branch, the School of Dentistry, and the School of Public Health—appreciate the detrimental effects that poor dental health can have on young children. Dental caries is the single most common chronic childhood disease (Crall et al. 2000). Severe pain can limit a child's ability to eat and talk, and can interfere with later success in school. According to the National Governors' Association, more than 51 million school hours are lost each year to dental-related illness (Krause 2002). Partners in the ECC project aim to reduce the caries rate among the WIC population through education and prevention activities.

In 2000, the southeastern regional Food and Nutrition Service (FNS) office began notifying state-level officials about "a new push in WIC to provide dental education with an emphasis on the nutritional aspects of good dental care." Around the same time, the Chair of the Department of Pediatric Dentistry at UAB, who also serves as a consultant to the state health department, expressed an interest in developing, through the health department, a program focusing on the prevention of ECC. He has a history of serving the dental needs of low-income populations and

¹⁹ Participation data are not stratified according to Hispanic origin or Spanish speakers. However, local program staff report that the number of Spanish speakers in certain areas is growing. For example, the nutrition area coordinator for public health area 5 (northeastern Alabama) estimated that 40 percent of WIC clients are Hispanic, and the coordinator for public health area 2 (north-northeastern Alabama) noted that one-third of statewide Hispanic caseloads—about 10,000 total—are in her service region.

is interested in learning about new ways to improve dental care among children. At that time, the chair of the department knew little about the specific components of the WIC program.

Before the initiative, the Oral Health Branch partnered with the dental school to conduct a needs assessment of the WIC population in Alabama in 1999. Dentists examined a small sample of 136 WIC children ages 18 to 48 months from several clinics. The exams revealed a pediatric dental caries rate of 26.7 percent, about 6 percentage points higher than the national average.

With evidence that there was a problem with dental caries among WIC children in Alabama, stakeholders needed to determine the best course of action. At the time, the state had a very small Oral Health Branch and did not have a full-time dental director. Because its staff was small, the branch was somewhat limited in how much it could contribute to any project. Because WIC staff have experience in working with young children and in nutrition education, and because diet has a significant impact on dental health, it was a perfect opportunity to form a partnership between the Oral Health Branch and WIC, along with people at the university.

State officials then invited behavioral scientists to incorporate behavior modification into a dental education model. An epidemiologist from the UAB School of Public Health designed focus groups and surveys for WIC staff and parents to gather information that would be used to guide the development of the education materials. State and area WIC staff, along with dental staff, helped shape the focus group and survey questions, and suggested clinics to visit statewide.²⁰ These surveys enabled program planners to learn more about staff and client awareness, knowledge, behaviors, and interest levels in dental-nutrition education. They were especially interested to find out whether WIC staff thought that dental health education could fit easily into routine nutrition education activities, which they did. Regarding topics for the parent focus groups, two School of Public Health researchers were interested in learning about whom clients identify as credible sources of information, optimal methods of receiving information (for example, brochures versus videos), barriers to dental care and social services in general, the knowledge gaps for good oral health, and current dental care practices. They collected input from clients at nine ethnically and geographically diverse clinics and through a survey of 20 WIC coordinators.

During the focus groups, several misconceptions emerged that confirmed for program planners that the WIC population needed better dental health education. For example, a large portion of parents were unfamiliar with ECC and how often they needed to brush their children's teeth. Many did not know that milk and formula contain sugar that bacteria use to cause tooth decay and that children should start to see the dentist after they turn 1 year old; they had assumed that they could wait until the children were 4 or 5. Parents were very interested in learning more about appropriate practices to prevent ECC.

With this information, university representatives developed—in consultation with state health department, WIC, dental, and graphic design staff—several teaching tools, including a

²⁰ Because state officials wanted to develop a culturally sensitive model, various ethnic groups from the WIC population participated in focus groups, including African American, Native American, Hispanic, and Vietnamese program participants.

video, flip charts, tip cards, and posters. Because they wanted to minimize staff burden, they abandoned the notion of time-intensive counseling and opted instead for an easy-to-read flip chart that WIC staff could use with participants, posters for the clinics, a dental referral sheet, and other intervention materials that clients could review at home.

After the USDA infrastructure grant was approved, the state WIC office presented the ECC project to the Nutrition Area Coordinators, who are responsible for selecting the statewide nutrition education plan every two years. For the coordinators, it was a timely project, since WIC staff knew that caries was a pervasive problem, particularly since adequate dental care is often not available in rural parts of the state. Moreover, they had been familiar with the program's development since (1) the assistant state dental director, at the 1999 WIC Nutrition Education Workshop, presented an overview of what caries is, how it develops, and how it can be prevented; (2) WIC staff completed the surveys that influenced the grant application at this workshop; and (3) UAB representatives presented their findings from the participant focus groups to nutritionists and nurses at the 2001 Annual WIC Training Conference in September 2001. The coordinators approved ECC prevention as the focus of the two-year plan from October 2002 through September 2004.

Target Population. The ECC initiative is intended to reach pregnant and postpartum women, infants, and children who are enrolled in WIC. For the statewide 2002–2004 nutrition education plan, however, Nutrition Area Coordinators chose to focus specifically on WIC clients from infancy through 2 years of age, when good oral health practices are established and when infants and toddlers are at the highest risk for developing ECC. Although the initiative formally targets ages 0 to 2, state officials encourage clinics to provide ECC education to prenatal women and all children in the program, including three-, four-, and five-year-olds. The extent to which staff actively deliver services to older children varies from clinic to clinic.²¹

In designing the ECC model, program planners recognized the importance of developing a pedagogical model that was ethnically and culturally appropriate to the WIC population. For example, some focus group participants revealed that African Americans often view a maternal figure as a credible source of information and guidance. Therefore, program planners used an older African American woman as the narrator for the video. Other actors in the video and in models for the flip charts represented a range of ethnic groups so that the educational tools reflected the WIC clients to whom they are targeted. All materials have been produced in English and Spanish.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. Because the teaching preferences and learning environments vary among different sites, state officials wanted to grant local agencies the flexibility to select which supplies and activities to implement. Therefore, the characteristics of service delivery for the ECC initiative vary from site to site. Under its second objective, the statewide nutrition

²¹ A group of nutrition area coordinators believed that many clinics give the incentive items, such as toothbrushes and stickers, to older siblings.

education plan states that “dental health education materials may include the following: toothbrushes and toothpaste, dental floss, a large model of a mouth with toothbrush, pamphlets, flip chart, video, and posters.” The flip chart explains (1) the importance of baby teeth, (2) the seriousness of ECC in dental health, (3) the causes of tooth decay, (4) the ways proper oral care can prevent caries, (5) some important feeding tips, and (6) the importance of regular dental visits starting at age 1.²²

The video shows the proper way to clean an infant’s mouth and the way to brush and floss a child’s teeth, covers general nutrition education information, and recommends how often children should see a dentist. The Oral Health Branch also purchased and distributed large-toothed puppets that staff could incorporate into education classes to make them fun and appealing for young children. Dental screenings are not a part of this initiative, though for years some clinics have had dentists come on site to do screenings. WIC staff do, however, provide a dental referral sheet of local low-cost dental services. One side contains information on how to find Medicaid dentists and provides toll-free numbers, and the other contains a list of low-cost, non-Medicaid community health centers that are federally funded. The following paragraphs illustrate the range of services between two local agencies.

A clinic in Jefferson County provides one-on-one dental education sessions with clients every six months on any weekday. Staff switched to individual sessions as opposed to group classes several years ago because (1) clients are more comfortable discussing confidential issues in private, (2) clients are no longer pulled out of classes for a scheduled appointment, and (3) there is adequate staff to deliver individualized contacts. Specific ECC services shift according to the sequential contact (for example, first versus second visit) and age of the child. During the primary contact, one nutritionist may talk about bottle use and weaning, and the importance of scheduling the first dental appointment when the child turns one. If a mother is reluctant to decrease or eliminate bottle use, she shows them a color postcard or “tip card” that depicts a mouthful of caries, a potential result of poor oral health. During the next appointment, the nutritionist distributes adult and pediatric toothbrushes, toothpaste, the tip card (see box), and the video to keep and watch at home, and also discusses proper brushing techniques.²³ She might ask the parent about how much sugar, juice, and milk the child is consuming, and talk to her about ECC. After asking whether the client is on Medicaid, she can refer the parent to several dentists who accept Medicaid participants or to the dental clinic in the health department.²⁴ At the third session, clients receive dental floss, crayons, and coloring sheets

²² Audiotapes and compact discs are available for Hispanic clients who do not speak English and cannot read Spanish, so that they can follow along in the Spanish flip chart without having to rely on a translator. Tapes and discs contain the spoken version of the Spanish flip chart.

²³ For clients who do not have a videocassette recorder, equipment is available at all WIC sites throughout the state.

²⁴ On the first floor of the Central Medical Center, there is a dental clinic that takes patients on a walk-in basis. To qualify, patients must live in the county. This clinic is an invaluable resource, because WIC nutritionists can immediately send clients downstairs for a dental appointment.

TIP CARD

1. Baby teeth are important.
2. Mom's teeth are important.
3. Clean teeth and gums every day.
4. Only formula, water, or breast milk in bottle.
5. No bottle or breast when sleeping.
6. Give juice in a cup only.
7. Trade bottle for cup by the first birthday.
8. Give healthy snacks.
9. Baby's checkups start at age 1.
10. See white spots? See the dentist.

that focus on flossing. (Staff downloaded these sheets, which are aimed at two- to three-year-olds, from the Internet.)

In contrast, a clinic in Calhoun County prefers to deliver most (75 percent) dental education contacts through group classes. All group nutrition classes take place at 8:30 A.M. and again at 1 P.M. on Mondays, Tuesdays, Thursdays, and Fridays, and dental classes are scheduled four times a month. Classes last about 15 minutes and are divided roughly into three age groups. The 4- to 5-month-old class might focus on stressing the importance of cleaning gums every day with a washcloth and water. For the 10-month-old class, nutritionists discuss weaning, offer tips for preventing caries, and distribute a list of local dentists who accept Medicaid clients. During a typical class for those with children 1 to 5 years old, the format is primarily lecture-based but also elicits feedback and personal experiences from clients. Topics for the session, entitled "Something to Smile About," included examination of a picture of dental caries, the causes of caries, baby bottle tooth decay and the consequences of long-term bottle use, plaque and unlikely sources of sugar, a step-by-step progression of tooth decay and early warning signs, and serious—albeit rare—medical effects of poor oral health.²⁵ The nutritionist then discussed the 10 important steps that families should take to prevent ECC (see box), and demonstrated appropriate brushing techniques and the adequate amount of toothpaste. At the end of the class, clients received a bag (one bag per child or prenatal client) that contained (1) a pediatric toothbrush, (2) toothpaste, (3) mint floss, (4) crayons, (5) an *ABCs of Good Oral Health* coloring book, (6) a colored postcard of severe childhood caries on one side and a list of important tips on the other, (7) a two-sided Oral Health Fact Sheet developed by the Department of Public Health, (8) an information sheet on the Medicaid dental program that lists 20 reduced-fee dental clinics throughout the state, (9) a referral list of dentists, and (10) a Medicaid information booklet.

²⁵ This is a PowerPoint version of the flip chart. It is available for the few clinics equipped to use it.

Prenatal mothers sometimes have their own class; sometimes they join one of the other classes. If clients miss a scheduled class, their charts are forwarded to the service rooms,²⁶ and they can be seen for a one-on-one session at any point during the day when they come to the clinic. All service rooms contain bilingual dental flip charts nutritionists can refer to. Staff occasionally show the video in the waiting room, where it is rotated with other nutrition videos.

Participation. All 115 WIC sites throughout Alabama must incorporate some elements of the ECC model into their two-year nutrition education plan. The average monthly caseload for fiscal year 2003 was 119,463 total participants. In looking at the targeted population as defined by the Nutrition Area Coordinators as part of the statewide plan, WIC estimates that 100,000 children aged 0 to 2 will be served over the two years. As described above, specific services vary across the state. Beyond September 2004, the English and Spanish education materials and the dental referral sheet that were developed as part of the ECC initiative will continue to be used routinely in providing education about ECC for pregnant women, infants, and children up to age 5 who are enrolled in WIC.

Coordination and Collaboration. The ECC project has been a collaborative effort of the Alabama Department of Public Health (WIC Division and Oral Health Branch), the UAB School of Dentistry, and the Department of Health Behavior within the UAB School of Public Health. Drawing upon each other's strengths, and with substantive input from clients and local staff, these stakeholders worked together to develop a nutrition education model for the prevention of ECC in order to promote and cultivate proper oral health practices among WIC families.

One interesting partnership that emerged after the ECC prevention initiative began is between the WIC program and Head Start. Over the past few years, there has been more of an emphasis at the state level on WIC clinics collaborating with other agencies in providing nutrition education. One nutrition area coordinator teaches a class about ECC prevention at local Head Start centers. The class counts as a secondary nutrition education contact for those children enrolled in the WIC program and is a way to encourage good dental health among other families with limited resources. Parents sign a form on the day of the class granting permission for their children to attend; this documentation also allows WIC to count the class as a secondary nutrition education contact for children participating in WIC.²⁷ Since it would be difficult in terms of scheduling for local nutritionists to travel off site to Head Start centers, the coordinator assumed responsibility for teaching the classes. The Oral Health Branch covers the cost of distributing dental supplies and other incentives in the Head Start centers.

The first class took place in May 2003 at a Head Start center in Cleburne County, a rural area that contains only one part-time dentist. On that same visit, the nutrition area coordinator also showed the video to a group of parents representing about 25 families. It soon became clear

²⁶ This WIC clinic has multiple service rooms (which resemble exam rooms at medical clinics), and staff rotate from room to room.

²⁷ The nutrition area coordinator estimated that 32 percent of children in these classes are also enrolled in the WIC program.

that raising awareness about healthy dental practices was an important mission for WIC in working with Head Start.

The central educational tool in the Head Start classrooms is an alligator puppet with large teeth and a foot-long toothbrush. The coordinator talks to the class about brushing regularly and eating healthy snacks, and each child gets a chance to practice brushing the alligator's teeth while the coordinator coaches their technique as needed. Children receive new pediatric toothbrushes, toothpaste, stickers, and a yellow chart (6 by 8 inches) entitled "Have you brushed your teeth today?" with spaces for each day of week that children can check off for four weeks.

As of July 2003, the nutrition area coordinator had conducted only three classes at two centers and a local nutritionist had conducted a class at a center in Randolph County; they served a total of about 65 children. However, the collaboration is relatively new. The area coordinator taught two more classes at a Head Start center in September and described her efforts at the statewide Annual WIC Training Conference that same month. Moreover, the coordinator, a nutritionist, and a WIC clerk visited this Head Start center twice to certify a total of 11 children for WIC. It is unclear, however, how many other public health areas in Alabama will begin partnering with Head Start. Service delivery will have to be done on a case-by-case basis, depending upon available staff time and client caseloads.

Publicity and Outreach Efforts. As a part of the statewide nutrition education plan, each local WIC site is required to conduct at least one outreach activity related to ECC prevention over the two-year period. Outreach activities vary from site to site. Clinics prepare a bulletin board; write articles for local newspapers or other publications; create a display for the clinic's lobby; host a poster session for a community health fair where staff talk about the WIC program, good oral health practices, and affordable dental services; meet with local dentists to raise awareness about the ECC initiative and promote access to dental care for WIC clients, or some combination.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. During the program planning phase, the Chair of the Department of Pediatric Dentistry spent 20 percent of his time participating in a needs assessment and writing the grant proposal. Representatives from the School of Public Health conducted focus groups and administered surveys that shaped the development of the flip chart, the video and accompanying script, and other educational materials. They modified the content with feedback from other partners involved in the development of the project. UAB representatives will likely be involved in a future evaluation of the ECC project.

In most cases, nutritionists and nurses conduct group dental classes and individual ECC sessions for WIC clients. Local staff also assume responsibility for outreach activities surrounding the education initiative. The 11 nutrition area coordinators ensure that the nutrition education plan is implemented in their agencies and send progress reports into the state office every six months. The state WIC nutrition coordinator and the assistant state dental director are responsible for disseminating dental supplies, flip charts, posters and videos to local agencies; tip

cards are ordered directly from the warehouse. The state officials also serve in an overall support role for local agencies, and will be involved in any evaluation.

Training. Training for the two-year nutrition education plan was not as extensive as state officials had originally planned. They intended to introduce the educational tools in a training video and even designed a script to accompany it. However, delays in production of the dental video for clients and a backlogged work schedule for the health department's video communications division forced program planners to devise an alternative training format.

As a result, the WIC state nutrition education coordinator and assistant state dental director drafted and distributed a memorandum with attachments to nutrition area coordinators, county WIC coordinators, and private local agencies, which covered all information contained in the flip chart. The attachments explained all the materials and supplies that local agencies would receive, and expanded on the information in the flip chart to give WIC service providers additional details about ECC and its prevention. State officials relied on the nutrition area coordinators to train their respective WIC county coordinators, who then trained their clinic staffs on the ECC model and on how to use ECC education materials. Most local in-service sessions lasted no more than an hour and generally took place during the regularly scheduled monthly clinic meetings. Nutritionists and nurses could use the attachments as a "quick refresher" for easy reference. (The nutrition area coordinators and clinic WIC coordinators oriented local WIC staff to the Nutrition Education Plan in October 2002.)

Funding. Expenses for the ECC initiative were covered through a combination of funds from a USDA infrastructure grant (\$37,038), the WIC Division (\$52,889), and the Oral Health Branch (\$70,413). Most of the funding from the state oral health program went toward toothbrushes and toothpaste. Salaries and travel costs for the WIC state nutrition education coordinator, the assistant state dental director, and the pediatric dentist from the dental school,²⁸ as well as other miscellaneous personnel costs, were considered in-kind. A subcontract with representatives from the School of Public Health was paid for by a portion of the USDA infrastructure dollars.

ASSESSMENT AND LESSONS LEARNED

Evaluation and Outcomes. The primary objective of the ECC initiative is a reduction in the ECC rate among the WIC population, although the state plan did not specify a formal goal (such as a reduction of 5 percent after two years). Program officials intend to reexamine WIC children in the same age group as the initial 136 children examined during the planning phase to gauge the relative degree of oral health. The chair of the Department of Pediatric Dentistry noted that it will be important to calibrate the examiners and then compare the caries rate with the baseline rate of 26.7 percent. In addition, he recommends a follow-up survey of local WIC

²⁸ The chair of the Department of Pediatric Dentistry at UAB has served as a consultant for the Alabama Department of Public Health for several years; the contract stipulates that he spend one day a week on state grant tasks. The ECC project falls under the scope of this position.

staff and would also like to visit a sample of clinics to interview staff and observe service delivery.

To meet state tracking requirements for the two-year education plan, WIC staff in each clinic review a sample of participant records every six months to determine the number of participants in the targeted groups who received education on ECC, the number of children weaned by 15 months of age, and the number weaned between 16 and 24 months of age. The clinic WIC coordinator then reports this information, along with the clinic's outreach activities over the previous six months, on a clinic progress report to the nutrition area coordinator. Finally, the nutrition area coordinators collect these reviews and prepare progress reports that are submitted to the state WIC office every six months.

Implementation Successes. All stakeholders, including program planners, local WIC staff, and clients, perceive the ECC initiative as an effective and successful endeavor for several reasons. First, the initiative has brought the importance of good oral health to the forefront for the WIC population and those who serve them. Partnering with the UAB School of Dentistry and School of Public Health provided the opportunity to disseminate effective teaching tools and information to promote healthy dental practices. This has been especially important in rural areas where dentists—particularly those who accept Medicaid patients—are few and far between. As state officials observed, children cannot have healthy teeth without good oral hygiene *and* healthy eating habits, which is why focusing on dental health education was a logical partnership for WIC. Local nutritionists and nurses report that parents have been very interested in the ECC education and materials, particularly since many are unfamiliar with common causes of ECC (such as insufficient cleaning of infant gums). Some parents reported to staff that their pediatricians never discussed preventive practices for ECC, and many parents did not realize the importance of dental care before 2 to 3 years of age.

The ECC initiative has also enabled WIC staff to provide clients with concrete tools that permit them to follow through and act upon the knowledge they receive at nutrition education contacts. Clients enjoy receiving free items like toothbrushes, toothpaste, and dental floss, and theoretically they have the materials and knowledge to start good dental care at home right away. Front-line staff say that “these little items really make a difference,” and children enjoy the puppets. Moreover, referral lists naming area dentists that provide free services to Medicaid participants or services on a sliding fee scale for those families who do not qualify for Medicaid have increased awareness that affordable dental care is available in certain communities.²⁹

Finally, program designers purposefully created engaging educational materials that would appeal visually to clients. One WIC nutritionist noted that the colorful materials, such as the postcard depicting a severe case of childhood caries, help a lot in conveying what can happen to teeth without good-quality oral health care. Nutrition area coordinators reported that line staff like the fact that the nutrition education plan on the prevention of ECC is “more fun and interactive” than previous two-year plans and that they have many teaching materials at their

²⁹ As the challenges section describes, there is a shortage of dentists who accept Medicaid patients or offer inexpensive services throughout Alabama.

disposal. Local agencies and nutrition area coordinators also seem to appreciate that it has not been difficult to incorporate ECC education into the daily routines in the clinics. Families are given copies of the video to watch at home, and information contained in the flip chart and accompanying audiotapes and compact discs is succinct and simple. The materials are available in English and Spanish, which is important since some clients have low literacy skills or are not fluent in English.

Key Challenges. Limited training from the state and the lack of dentists who accept Medicaid participants or offer a sliding fee system and who also serve children under 2 or 3 years old are two primary challenges that the ECC initiative has faced. Initially, state officials had planned to produce a training video, but logistical obstacles prevented this. Nutrition area coordinators and local staff who deliver services would have preferred more direction than the training memorandum. Although a training video was not available, some nutritionists would have welcomed such resources as (1) instructions for families that clearly outline proper brushing and flossing techniques, and (2) a satellite conference call convened by state officials to review training materials with regional coordinators.

While not a challenge that program officials have any control over, several nutrition area coordinators and local staff commented on the lack of accessible, affordable dentists for the WIC population. Many families do not live near care providers who accept Medicaid or offer reduced fees for needy patients.³⁰ (Program officials estimated that 50 percent of WIC clients do not even qualify for Medicaid in Alabama.) No dentists accept Medicaid enrollees in public health areas 2 and 5, and only one dentist does so in public health area 6. Most WIC participants in these regions must travel at least an hour (some as many as 100 miles one way) to find an appropriate dentist in Birmingham; pediatric dentists are even rarer. Because of transportation barriers, some families opt not to go to the dentist at all. Even if parents can gain access to an affordable provider, many dentists, even in large cities like Birmingham, refuse to serve children before they turn 3 years old and tell parents that it is not necessary. For many years, the Academy of Pediatric Dentistry recommended that children should first see a dentist upon turning 2, and in 2000 it reduced its recommendation to 1 year of age. However, given the protocols of many dental care practitioners, WIC program officials are concerned that parents have a difficult time finding a dentist who will take patients at 2 years old, let alone when infants turn 1. It is very frustrating for nutrition staff to convince parents of the importance of good dental care and of taking one-year-olds to the dentist, equip them with oral care supplies, and then learn that parents cannot find an affordable dentist or one who will accept infants and toddlers.

During the planning phase, state officials encountered some problems with the production of the video. They collaborated with the Video Communications Division in the health department but could not—for financial reasons—hire professional actors to be in the video. Instead, they used WIC clients on a voluntary basis. It was challenging (1) to ensure that they had a representative sample of volunteers, (2) to work with volunteer “actors,” and (3) to handle

³⁰ State officials remarked that many dentists are not willing to forgo a portion of private practice time to serve low-income families, because income from appointments would decrease.

logistics. For example, one picnic scene involved feeding 40 people, and some children did not cooperate in scenes at the dentist's office. Overall, it took six months to produce the video, a delay they had not anticipated. It was challenging for state officials to juggle this with all their other responsibilities. Furthermore, officials encountered delays in getting the videos translated into Spanish, and local agencies did not receive the Spanish version until October 2003.

Lessons Learned. Stakeholders agreed that the ECC prevention model could be replicated in other states. In fact, program planners intended to design a project that could be replicated, and program materials are available on the WIC Works Website. The initiative took some time to develop, so other states could benefit from their efforts. Nonetheless, other state WIC programs or local agencies could decide to supplement what has been accomplished in Alabama or to modify the tools to meet their own service population. For example, educational materials could be translated into a language besides Spanish. One nutrition area coordinator observed that special methods may be needed for delivering dental education on Indian reservations.

In addition, collaboration between different kinds of partners—in this case the WIC program, the Oral Health Branch, the School of Dentistry, and the School of Public Health—is critical when a program seeks to expand into nontraditional WIC topics. Partners can benefit from each other's expertise. In this case, a program that is, at its core, a supplemental food and nutrition education program chose to select ECC as a special initiative. The university was able to take the lead on collecting data, performing a needs assessment, and providing the knowledge about good dental care. Working with the health department's state dental office and the dental school at UAB brought valuable information to WIC, which had very limited dental education services before the ECC began.

Program planners also suggested that WIC programs in other states collaborate with any other stakeholders that have an interest in improving dental health, such as the Medicaid program. As an example of cross-program collaboration, the ECC project has demonstrated a promising partnership with local Head Start centers. The state WIC nutrition education coordinator noted that partnering with Head Start is an effective way to increase the number of secondary education contacts.

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**CEASE ALCOHOL RELATED EXPOSURE (CARE)³¹
LOS ANGELES AND ORANGE COUNTIES, CALIFORNIA**

OVERVIEW

Location: Los Angeles and Orange counties, California

Start Date: 2000 (research phase), 2003 (agency-wide rollout)

Target Population: Prenatal WIC clients in Public Health Foundation Enterprises Management Solutions (PHFE) WIC centers in Los Angeles and Orange counties.

Purpose: To improve the detection of prenatal alcohol use and to conduct a brief intervention for women who report current post-conception use. The ultimate goal is to improve birth outcomes by eliminating or reducing prenatal alcohol consumption.

Services: A five-question self-administered alcohol-screening tool is administered to all prenatal women at PHFE WIC centers. For those who report current alcohol consumption, WIC staff use a 10-minute Health and Behavior Workbook to motivate behavior change.

Funding: Almost \$1 million in funding was awarded to the University of California, Los Angeles (UCLA) by the National Institute of Alcoholism and Alcohol Abuse (NIAAA) for a three-year research project, \$282,000 of which went to WIC. The March of Dimes (MOD) gave \$58,577 in 2003 for an agency-wide rollout.

Why Program Was Chosen: This initiative is a straightforward and effective means of detecting and addressing prenatal alcohol use, and it addresses the WIC requirement to counsel pregnant women about drug and alcohol use. The model could easily be replicated in other agencies. Because few women meet the criteria for the brief intervention, the cost in additional staff time is modest.

Key Challenges: Some staff resisted the additional responsibilities at first, particularly with the extra paperwork required by the research, but recognition of staff contributions helped. Staff felt they may not be reaching seriously addicted women, but the intervention is not really targeted to this group, as they need more intensive services.

³¹ Telephone interview, April 15, 2003.

BACKGROUND

Community Characteristics. Los Angeles (LA) County in California has a population of over 9.5 million people based on 2001 estimates. In 2000, 31 percent of the population was white, lower than the state average. In the same year, 45 percent of the population was Hispanic, 12 percent Asian, and 10 percent black, all higher than the state average. Over half the population speaks a language other than English in the home. About 18 percent of the county population lives below the poverty level, compared to the state average of 14 percent.

Orange County has a population of almost 2.9 million people based on 2001 estimates. In 2000, 51 percent of the population was white, higher than the state average. In the same year, 31 percent of the population was Hispanic, and 14 percent Asian. About 41 percent of the population speaks a language other than English in the home, which is comparable to the state average of 40 percent. About 10 percent of the county population lives below the poverty line.

WIC Program Background. The PHFE-WIC program serves about 290,000 LA County WIC participants each month, and an additional 30,000 participants in Orange County. About 11 percent of the PHFE-WIC participants in LA and Orange counties are prenatal women. At PHFE-WIC, only nutritionists, not paraprofessionals, see prenatal women. The PHFE-WIC program has 48 clinics in LA County and 7 in Orange County.

Program History and Objectives. WIC is mandated to screen prenatal WIC clients for alcohol and drug use, and to provide annual training to staff members on these issues. The research on prenatal alcohol use indicates that as little as a few drinks a week can have serious implications for the child. In addition to decreased gestation, birth weight, length, and head circumference, there are also long-term effects like hyperactivity, response inhibition, poor coordination, poor habituation, depression, poor social judgment, and learning and memory problems. There is no known safe level of alcohol consumption during pregnancy; thus, WIC's message is to avoid alcohol consumption while pregnant, as recommended by the Institute of Medicine (1996). If a pregnant woman drinks at high levels and is unable to quit, she should at least reduce consumption. WIC staff make it clear that this is a short-term restriction that lasts only for the duration of the pregnancy, unless the woman chooses to breast-feed.

The California WIC program uses self-reports to assess alcohol use. Clients are asked, "When did you last drink alcohol?" Those reporting post-conception alcohol consumption are asked about drinking frequency and quantities, and whether they want to stop drinking. These responses are recorded in a central database, and women reporting post-conception alcohol use are given a special alcohol risk code in the database. About 5 percent of PHFE-WIC's clients reported consuming alcohol post-conception in 1999 based on this sequence of questions, but other reports in the literature have prevalence rates of 10 percent, which suggests that WIC may not be detecting half the cases. Underreporting could be a result of client embarrassment or shame, particularly as alcohol use is communicated orally and directly to a WIC staff member. A more sensitive assessment tool would help in targeting interventions.

Two investigators from the UCLA Fetal Alcohol Syndrome clinic, one of whom worked part-time at PHFE-WIC, wrote a grant to the NIAAA to develop, implement, and evaluate the CARE initiative.³² They were awarded the grant in September 1999. In general, CARE is intended to bridge research and practice, and to provide a stronger foundation for WIC to address prenatal substance abuse, particularly with alcohol. CARE includes a self-administered screening tool, an intervention tool called the *Health and Behavior Workbook*, and staff training on administering these tools and on prenatal alcohol use. The investigators developed the five-question self-administered screening tool that allows pregnant women to respond anonymously to questions about alcohol use. They also adapted the brief intervention model developed by NIAAA into a WIC Health and Behavior Workbook, a 10-minute intervention for those found to consume alcohol. The UCLA investigators collaborated with PHFE-WIC on a three-year research study of the screening tool and/or Health and Behavior Workbook comparing 12 CARE intervention sites (10 in LA County and 2 in Orange County) to 12 control sites that used verbal screening. Six of the CARE intervention sites used the screening tool with the intervention; the other six used only the screening tool. The research project began in May 2000.

Because of the success of the research project, and thanks to funding from the MOD, CARE is being rolled out in all PHFE-WIC centers in LA and Orange counties. According to the investigators, measurable objectives of the project are as follows: (1) by August 31, 2003, 90 percent of WIC staff that attend the Alcohol Prevention During Pregnancy training will be able to name 2 fetal effects of alcohol use during pregnancy and identify the proper alcohol screening protocol for pregnant WIC women; (2) by March 31, 2004, the detection rate of pregnant WIC women using alcohol during pregnancy will double (from 5 percent to 10 percent); and (3) by March 31, 2004, at least 1,700 women will be individually counseled by WIC nutritionists (using the Health and Behavior Workbook) on the risk of alcohol use during pregnancy and their plan to manage their alcohol consumption.³³

Target Population. Prenatal WIC clients in the PHFE-WIC program of LA and Orange counties are being targeted for the CARE screening tool and Health and Behavior Workbook.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. CARE includes a self-administered alcohol screening tool for prenatal women and an intervention using the Health and Behavior Workbook for those reporting post-conception alcohol consumption. CARE also includes staff training on administering these tools and on prenatal alcohol use. All CARE materials are available in English and Spanish.

Every month during the research project, all prenatal WIC women at the 12 CARE centers received the screening tool from a paraprofessional and completed it privately in the waiting room before their appointment. In 2003, the screening tool was incorporated into the WIC

³² Information about the research project comes from Whaley and O'Connor (2003).

³³ Excerpt from the original project proposal, updated in personal communication from Shannon Whaley, November 2003.

prenatal questionnaire that clients complete once every trimester at the centers. The tool contains five questions. The first two ask about drinking habits before the woman knew she was pregnant. It has been found that women are more likely to be honest about current consumption if asked first about drinking habits before pregnancy. The third question asks about binge episodes of three or more drinks on one occasion. Some women are more likely to report a binge episode, because it is something that they can say happened only once. It is often more difficult to admit drinking habitually. The fourth and fifth questions inquire about the quantity and frequency of current use. Either the nutritionist or a paraprofessional scores the screening tool.

A nutritionist sees all prenatal women and reviews the screening tool. For women who were drinking but stopped after they found out they were pregnant, nutritionists congratulate them for stopping and remind them of the reasons to stop during pregnancy. Nutritionists review the Health and Behavior Workbook with those who are still drinking.

The 11-page Health and Behavior Workbook takes about 10 minutes to review with a client. It provides facts about the problems an infant can have due to alcohol exposure in utero, and reminds the client that she can have a healthier baby if she stops drinking while pregnant. There is also information on risky circumstances that can lead women to drink (she is depressed, bored, or angry, smoking, or attending a celebration), and the means of coping with these situations (for example, taking a walk, talking to a friend, reading a magazine, grabbing a snack). The workbook also defines a standard drink (12 ounces of beer, 5 ounces of table wine, 1.5 ounces of hard liquor). Toward the end of the workbook, the woman sets a goal for the next month—either to stop drinking alcoholic beverages or to cut back by a specific amount. About 98 percent of clients say they will stop. For those who choose to cut back, the workbook provides strategies to reduce consumption (such as measuring drinks, watering down drinks, sipping drinks, eating food with a drink). At the end of the intervention, the client is given the workbook for review later. The nutritionist has a form to document reactions and the goal that was set. Clients also receive MOD's "Alcohol Use & Pregnancy" brochures and fact sheets.

The screening tool is administered again in the next trimester, and if the woman is still drinking, the Health and Behavior Workbook is readministered. However, 95 percent of women report that they have stopped drinking by the second time they complete the tool.

As standard WIC protocol prior to CARE, if a woman is drinking three or more drinks three or more times a week, she completes a referral questionnaire inquiring further about drinking habits (including drinking first thing in the morning, drinking while driving). If there are more than three positive responses, the woman is to be referred to a physician or inpatient treatment. However, even without answering the referral questionnaire, clients consuming that much are referred elsewhere. Nutritionists use a book of substance abuse resources in the community to make referrals.

Participation. PHFE-WIC conducted the research project in 12 intervention and 12 control sites in LA and Orange counties in 2000–2002. Sites were randomly assigned to intervention or control status. The 12 control sites did not use the screening tool or the Health and Behavior Workbook. With MOD funding, PHFE-WIC expanded the program to include all 55 LA and Orange County PHFE WIC clinics in 2003. These 55 clinics serve 35,000 prenatal women a month and have 600 staff.

Coordination and Collaboration. PHFE-WIC and UCLA collaborated on the research project.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The research project investigators are both from UCLA's Fetal Alcohol Syndrome clinic, and one works part-time for PHFE-WIC. A Research Assistant, who also works part-time for PHFE-WIC, was funded by the NIAAA and MOD grants for her time on CARE. PHFE-WIC staff members implement the screening tool and/or the Health and Behavior Workbook.

Training and Quality Assurance. In the research project, the investigators and research assistant developed and conducted the training. In general, WIC staff members were trained so that they understood the study purpose, protocols, and consent forms. Paraprofessionals were trained to score the screening. Nutritionists are the only WIC staff who provide counseling and administer the Health and Behavior Workbook to prenatal clients. They participated in ongoing training three or four times a year at PHFE-WIC's central office. The same 25 to 30 WIC nutritionists attended all the two- to three-hour meetings. The initial training addressed the problem of Fetal Alcohol Syndrome, information about the research project, WIC staff's role in the project, using the training manual, tracking clients, and using the research protocols. Subsequent trainings addressed the status of the project and participant questions or concerns.

As agency-wide rollout began, the information specific to the research study was removed from the training manual. The manual details the use of the screening tool and the Health and Behavior Workbook. All 175 nutritionists received training in early August 2003 in a two-hour session that focused on three aspects of the rollout: (1) screening, (2) intervening, and (3) documenting. Nutritionists who missed the August training were trained in October 2003. Nutritionists then trained their staff to help with the screening. No further full-staff trainings are planned; instead, the 13 managers who oversee the 55 sites assess the project regularly.

Record-Keeping and Data Systems. A nutritionist rating form is sent in for each workbook completed. This form allows program officials to track the number of interventions and record information such as intervention duration, how much women are drinking, and client reactions to the intervention. Since the screening tool is incorporated into the WIC prenatal nutrition questionnaire that is distributed each trimester, it is kept on file.

Funding. NIAAA funding was close to \$1 million for the research project. Of that amount, \$282,000 went to WIC, who served as UCLA's subcontractor, and the other portion went to UCLA for designing the research and analyzing the data. PHFE-WIC received \$58,577 in MOD funding to expand the intervention, not the research, to all PHFE-WIC sites in 2003. The grant paid for the Health and Behavior Workbook reproduction, integration of the screening tool into the WIC prenatal form, MOD "Alcohol Use & Pregnancy" brochures and fact sheets, and investigators' labor. During the research phase, the NIAAA grant paid for the 10 minutes of staff time for every intervention. With the expansion, WIC is assuming that cost, because the number of women per center per month who need the intervention is fairly small. The

investigators have submitted additional grant proposals to NIAAA for evaluation of the expansion and longitudinal followup.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. An important strength of the program is that it was rigorously evaluated and outcomes were positive. In the research study, UCLA targeted a sample of 300 women in the intervention sites to follow during their pregnancy. Half were in the six clinics that provided the screening tool and the Health and Behavior Workbook, and half were in the six that provided the screening tool and strong verbal messages to avoid alcohol during pregnancy. In both groups, most women stopped drinking. However, only 23 percent of the women who were administered the workbook continued to drink, compared to 50 percent in the group that received the standard verbal warning. Further, as of the third trimester visit, most women in the intervention group had maintained their abstinence, whereas most women who received only the standard verbal message had not. Thus, any message helped, but the Health and Behavior Workbook seems to have had a greater impact both immediately and throughout pregnancy.

Screening outcomes were also compared between the 12 intervention sites and the 12 control sites. Investigators concluded that the self-administered screening tool increased the reporting of prenatal alcohol use, which is an essential first step in reducing or eliminating it. Specifically, in 1999, before the CARE initiative, about 5 percent of all pregnant women in PHFE-WIC were reporting alcohol use based on the verbal standard of care. With the new screening method, the rate was closer to 15 percent in the 12 intervention sites, compared to about 5 percent at the 12 control sites. If the investigators receive additional NIAAA funding, they will be able to follow up with the sample members when the children are 3 or 3.5 years old and to evaluate long-term alcohol use.

Key Challenges. The investigators suspect that CARE may be missing mothers who are seriously addicted. The project was a research study that involved consent forms, which those with severe problems may not have signed. In general, the Health and Behavior Workbook is not going to work well with addicted women, who need intensive assistance. Unfortunately, there are not many community resources for treating alcohol abuse in pregnant women.

It is important for agencies that might implement such an initiative to determine a strategy for motivating staff to support the effort. Often, special projects entail more work for staff. Even though such projects are consistent with “core” WIC services, they can increase the staff workload. This project did not mandate that WIC staff work extra hours, but it did require that they counsel pregnant women more thoroughly about alcohol use. They also needed to keep track of paperwork that was specifically for the evaluation. Therefore, incentives such as clinic pizza parties and movie tickets for nutritionists who intervened with the most women were effective and appreciated. Also, program-wide recognition of the 12 sites involved in the research project was well received.

Lessons Learned. Program officials believe that this low-cost, straightforward initiative can be replicated in other agencies, particularly at the state level or in large agencies. All that is

necessary to implement the initiative is to incorporate the screening tool into prenatal forms, make the Health and Behavior Workbook available, and train staff to use these tools, which takes just a few hours.

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C. STAFF TRAINING: IMPROVING METHODS, NUTRITION KNOWLEDGE, AND CULTURAL SENSITIVITY

States are increasingly trying to improve the quality of nutrition services by providing specialized training to local staff. Although many states have annual conferences and all provide regular updates on policy changes, some states have developed additional training sessions, often lasting a day or more, on specific topics. The types of training initiatives they have developed are quite diverse, as illustrated below. In some instances, states have used “train-the-trainer” or videoconferencing approaches to reduce the costs of training. Sometimes training materials are adapted from other programs or developed by an outside consultant, while other projects develop these resources internally. Nutrition education committees on which state and local staff work together were important arenas for developing and/or testing new curricula in several of the state initiatives described here.

Many of the state initiatives already discussed include extensive training, such as the Texas Peer Counselor train-the-trainer sessions and the Nutrition Educators Conference in Oklahoma. This section discusses three state efforts in which training is the major activity. First, we discuss a “train-the-trainer” program on facilitated group discussion in Michigan, a method for achieving behavior change that was not previously used in the state. Other states have also emphasized facilitated group discussion in their staff training. However, the Michigan program stands out because it may be the only one with a train-the-trainer approach. Its materials are also very readable, and could easily be adopted by others.³⁴ Second, we discuss a content-focused California program to provide training, reference materials, and technical assistance to WIC registered dietitians so that they can keep up with changes in available infant formulas and other pediatric nutrition issues. Finally, we present a Wisconsin program that trains bilingual support staff to provide nutrition education and sometimes certification for non-English-speaking clients, with the goal of getting key nutrition messages to clients more effectively by reducing language barriers.

³⁴ Initiatives in other states that have used facilitated group discussion include the FIT WIC programs. A manual on facilitated group discussion developed by researchers at Pennsylvania State University is available on the FIT WIC Website: www.nal.usda.gov/wicworks/Sharing_Center/statedev_FIT.html.

LEARN TOGETHER APPROACH: MICHIGAN³⁵

OVERVIEW

Location: Michigan, statewide

Start Date: Planning began in 2000; two rounds of training were held in 2001, with a third round in 2003.

Target Population: Training program for WIC staff, for use with adult WIC clients or parents of WIC infants and children.

Purpose: To provide WIC staff with tools needed to conduct nutrition education sessions for adults through facilitated group discussions, which are seen as more likely to be successful in reaching adult learners and producing behavior changes.

Services: A “train-the-trainer” curriculum in nutrition education through facilitated group discussion was developed, and local WIC leaders were trained. Nutrition education modules have been developed at the local level, using a format taught in the training. The training curriculum and sample nutrition education modules are available on the Web.

Funding: The curriculum development and training were funded largely by the state WIC program and through registration fees paid by local WIC agencies. The train-the-trainer format was used to keep costs low.

Why Program Was Chosen: The use of a train-the-trainer approach for teaching about facilitated group discussion is innovative. In addition, the training materials and lesson plans are well written and widely applicable.

Key Challenges: After the first session, staff needed to shorten the training to enable more staff to attend. Because of limited travel funding, they also needed to offer it in various locations.

³⁵ Telephone interview, May 14, 2003.

BACKGROUND

State WIC Program Background. Michigan is in the U.S. Department of Agriculture (USDA) Midwestern region. Its 2001 population was just under 10 million. Michigan had fewer Hispanics (3.3 percent) and a lower 1999 poverty rate (10.4 percent) than the nation as a whole (12.5 percent Hispanic and 12.4 percent in poverty), but it is similar to the nation in median income (from Census QuickFacts). The Michigan WIC program served 215,989 people a month in fiscal year (FY) 2002, which made it the ninth-largest program in the nation (see [www.fns.usda.gov/pd/wifypart.htm]). There are 50 local WIC agencies, including some tribal agencies; most are county or district (multi-county) health departments, but some are health care providers or community-based organizations. The local WIC agencies range greatly in size; the Detroit area is home to the largest program (operated by the Detroit City Health Department—serving nearly 70,000 a year) and several other sizable programs. However, some specialized medical centers and rural health departments have very small programs (see www.mdch.state.mi.us/wicenroll/state_ag.asp).

Program History and Objectives. The idea for the program arose in 2000, when the state was making plans for revitalizing nutrition services. The use of facilitated group discussion was the approach they decided to pursue. Based on what state staff saw during management evaluations of local agencies, they felt that nutrition education in Michigan was fairly stale—most of it was in a lecture format, which was not really suited to the needs of the adult learner. Two state agency staff had attended a conference where Susanne Gregory gave a presentation. The state WIC agency decided to hire her to develop a training curriculum and conduct the initial training. Susanne Gregory is an expert in facilitated group discussion who had provided training for WIC staff in several states. However, she had not used a “train the trainer” approach before she worked on the Learn Together Approach with Michigan staff.

Target Population. The training is intended for WIC staff who provide nutrition education or for their supervisors. They in turn are expected to train any of their staff who provide nutrition education but could not attend the state-sponsored training. WIC participants are the ultimate target population, as the goal is to improve nutrition education for adult WIC participants and parents of child participants. As discussed further below, the training was also designed to be used in training Michigan State University Cooperative Extension (MSU-E) staff who provide nutrition education to low-income families.

PROFILE OF INNOVATIVE PROGRAM

Development of Training and Materials. In fall 2000, state staff worked with Suzanne Gregory to develop a proposal for the program, including a contract with Suzanne to develop the training materials and conduct the initial training. They then submitted the proposal to management at the Department of Community Health. One reason it was approved was that this type of training is less expensive than having the state train all staff who provide nutrition education. The cost for the contract was only about \$6,000. (Most likely, the low cost partly reflects the fact that Ms. Gregory had materials from elsewhere to build upon.) Ms. Gregory drafted the training materials, and the state staff reviewed drafts and provided comments. The materials were completed in the spring of 2001.

Trainings Held. The first training, in June 2001, was led by Suzanne Gregory. It was held in Lansing, the state capital, near the center of the state. The session was limited to WIC and MSU-E staff. Attendees had to fill out an application describing their experience as nutrition educators. Local WIC staff also needed a signed statement from their WIC Coordinator saying she would support the attendee in implementing the Learn Together Approach. In addition to local WIC staff, several state-level WIC staff (including those who would run future training) attended the initial training. About five MSU-E staff attended.

A second round of training sessions, taught by state WIC staff, was held in October 2001, in four different regions of the state, in an effort to reach more WIC agencies. Michigan WIC opened the training to staff who worked in programs other than WIC and MSU-E (see more below). They no longer required the WIC Coordinator to sign off on the applications.

A third training was held in Lansing in April 2003. The major goal was to reach WIC staff who had joined WIC since the earlier training.

The initial training lasted two days, but the training was then cut to one day. Training sessions were limited to 24 persons, so that all could participate fully. Over 100 WIC staff have been trained across all the sessions.

Training Curriculum and Sample Nutrition Education Modules. The Learn Together Approach is a train-the-trainer model of training in facilitated group discussion. Training was very hands-on. After presenting the idea of facilitated group discussion, the trainers led a sample discussion to model the approach (with some of the trainees playing the role of clients).

Next, trainees developed a nutrition education module for a facilitated group discussion (at the two-day training; they used existing modules at the one-day training). They were trained to use a template for developing a nutrition education discussion module around a specific topic, such as introducing new foods to picky eaters. A key idea was that, in a particular discussion, the leader should leave people with three ideas they could apply in their daily lives, and no more. The discussion should start with an icebreaker to get everyone talking. The leader should have prepared three or four open-ended questions for discussion on the topics to be covered. The module also should include a question to use at the end, asking all participants to sum up what they have learned or what new behavior they are going to try. In addition to training staff on developing these modules, the training also covered techniques for correcting incorrect information and moving the discussion along.

Trainees then split into groups of about five. One led the discussion, one observed and evaluated the leader, and the rest acted the part of participants. These “practice sessions” were repeated several times, so each trainee could experience all three roles. (Staff reported the “clients” were often hard on the discussion leaders—probably more than real WIC clients would be.)

Last, the training moved to how to set up a session to train others at their local agencies in facilitated group discussion; this covered the materials needed and key steps; the training manual provides step-by-step instructions on what to do. The one-day version of the training covered this in less detail than the two-day version.

All trainees received a comprehensive training manual and sample forms and materials to use in training local staff and in planning facilitated group discussions. The Michigan WIC program has also posted these materials on the WIC Works Website. Responsibility for developing nutrition education modules was left to the local WIC agencies, but after the first training, the state staff gathered some of the best ones to post on the Web and use in later training sessions.

Nutrition education modules came from various sources. Some were adapted from materials that previously had been presented in a lecture format. In 2002, Michigan WIC sponsored a statewide training on the feeding relationship ideas of Ellyn Satter.³⁶ State staff incorporated some of her infant-feeding ideas into sample modules used in the 2003 Learn Together Approach training. Another module, on picky eaters, uses as a “hook” asking WIC clients to try dried seaweed—a strange food to most of them (and they are not told in advance what it is). Clients then use this experience to consider how their children might feel when asked to try new foods and to share strategies that are successful.

Training Logistics. The first training was conducted by Suzanne Gregory, and the later training was conducted by the three WIC agency staff (two nutritionists and a psychologist) who had worked most closely with her on developing the materials. All three participated in the first regional training, and then two led the later training. It is important to have at least two people so that it is possible to split into smaller groups.

Trainers collected evaluations at each training and made changes in response—one key change was cutting the training from two days to one day, because it was difficult for WIC staff to get away for two days. In addition, it was difficult for local agencies to pay for overnight accommodations. Local agencies paid a registration fee for their staff to attend the training (see discussion of funding).

Collaboration with Other Agencies. The state WIC agency works often with MSU-E on nutrition education training. MSU-E was included in this initiative from the start and sent some of their staff to each training. MSU-E contributed one-third of the funding for the first training.

When the four regional training sessions were conducted in fall 2001, the state WIC office did outreach to local health departments, Head Start, and Indian Tribal Organization (ITO) WIC agencies in the state. WIC and MSU-E staff had priority for the training slots, but staff from some of these other agencies participated in the training.

Publicity for the Training. The Michigan Department of Community Health regularly contracts with the Michigan Public Health Institute, and used them for this project to create the flyers, send out mailings, and handle conference arrangements for each training, including

³⁶ Ellyn Satter is a nutritionist known for providing advice on developing positive feeding relationships between parents and their infants and toddlers. Her books include, *Child of Mine: Feeding with Love and Good Sense* (2000).

lodging (for the first training), registration, and setup of the meeting rooms. The training was also publicized through the Nursing Forum, which is part of the state Department of Community Health; members of this group publish a newsletter that is sent to their colleagues. The state's WIC Nutrition Education Working Group, on which state and local WIC staff are represented, helped to get the word out. MSU-E sent information about the training to their staff.

One important way to attract participation in the training was to obtain continuing education credits. State WIC staff found this to be challenging for the first training, because the process most frequently used was to submit through the Michigan Nurses Association (MNA), which requires significant lead time. They obtained continuing education credits through one of the other categories of allowable credits by the Michigan Board of Nursing for the first training. They received the credits through MNA for subsequent training.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. As noted, state WIC staff worked with an outside consultant to develop the training, and with another consultant to handle outreach and logistics. Four staff members at the state agency were initially involved with the project, and three worked on the regional training sessions. Two of the four conducted the 2003 training; the others have left the agency.

Record Keeping and Quality Control. One issue is how well the state WIC agency can follow up to learn whether the training is indeed being implemented at the local level. One important change that they made was to add to their management information system a code for "facilitated group discussion" as a type of nutrition education contact. The state staff can track the code in the computer to find out whether an agency is using facilitated group discussion either alone or in combination with some lecture-style nutrition education. However, this would require creating an "ad hoc" report, which so far has not been done.

In December 2001, they conducted a survey to follow up on the training, and found that 28 of 50 agencies were using facilitated group discussion, at least to some extent. Local agencies also report on nutrition education in their annual "Nutrition Services Plan." State staff monitor the plan's implementation during management evaluations, which include observations of nutrition education in the agency. In agencies' Nutrition Education Plans for FY 2003, 54 percent (27 of 50 agencies) indicated they were using facilitated group discussion. In addition, 64 percent (32 of 50 agencies) indicated they were using a combination of lectures and facilitated group discussion.³⁷ Further, the WIC Nutrition Education Workgroup meets every two months—it includes state and local staff from all over the state—and members report on what is happening at the local level. The state agency tends to use them as a "focus group."

The state agency has not systematically tracked whether participants have trained others in their local agencies in the Learn Together Approach, and has not had the resources to collect this

³⁷ Multiple responses were allowed concerning modes of nutrition education—it is not clear how much these two categories overlapped.

information. It would be interesting to know if the train-the-trainer aspect of the training proved useful.

Funding. The training was funded from state WIC Nutrition Services and Administration (NSA) funds and registration fees. In addition, MSU-E contributed funding for the first training. The major costs included the cost of Susanne Gregory's contract, the cost of the contract with the Michigan Public Health Institute, the cost of the time of the four state agency staff involved, and costs for printing of materials. There was also a cost for applying for continuing education units. The state WIC agency also paid for some of the travel and lodging for the trainings, but these costs were covered mostly by local agencies (and were not much of an issue except for the June 2001 training, the only two-day training). The registration fee was \$25, which paid for the materials; it was covered by the local agencies for most local WIC staff, and by MSU-E for their staff. Overall, the costs for developing the materials and conducting the five trainings were less than \$20,000 (not counting the labor costs for state agency staff).

The state WIC agency viewed the costs as very reasonable when compared to the cost of having a central training for all state WIC staff who do nutrition education. Of course, state costs do not include costs incurred by local agencies to send their staff to the state-sponsored trainings or to do local training, but those would probably not be too large.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. The Learn Together Approach seems a useful method for teaching how to lead facilitated group discussions at reasonable cost. In training evaluations, participants responded positively. The state staff observed that trainees seemed very excited and motivated. Some staff were uncomfortable with the approach at first, because they felt they should be conveying more information, or because they feared losing control of the group or having people leave with erroneous ideas. During the training, they tried to show trainees multiple approaches to acknowledging client contributions but still correcting any incorrect beliefs.

Our state contact felt the major strengths of this training are that it helps people to realize that:

- Nutrition education can be fun
- Lectures are not a good approach to adult learning
- Clients have varied experiences and can learn best when they can relate the content to their own experiences

She felt the approach was "freeing" for many. They were relieved to hear it is enough to share a few good ideas and have clients make a commitment to a specific behavior change.

Another strength of this training is the materials available on the Web are comprehensive and easy to read, so that they could be readily applied elsewhere.

Key Challenges. In implementing the Learn Together trainings, one challenge staff faced was making the training accessible to local staff, by choosing the appropriate locations and length of training. Some other areas in which the program might be strengthened include monitoring the extent to which trainees conduct local training (to determine whether the train-the-trainer focus is indeed useful), and developing methods for sharing training modules developed at the local level with other local agencies.

Lessons Learned. The Learn Together Approach to training the trainers in facilitated group discussion seems widely useful, particularly in large states or other areas where funding constraints make it infeasible to train all local WIC nutrition educators. The materials could be adapted by other agencies with few or no changes.

Michigan staff recommended to other states that would be interested in such a program that they work with a professional experienced in the field, so they can see the approach modeled by someone with experience. It is also important to realize that the approach is not suited to all topics. In particular, it is not appropriate for anything with a “psychomotor” component, such as teaching nursing mothers how the baby should latch on to the breast. However, many of the skills involved can also be used in one-on-one counseling—for example, asking open-ended questions and affirming the client’s experience.

The WIC programs in many states are moving to increased use of facilitated group discussion techniques for nutrition education. It would be useful to conduct further research to determine whether these approaches are more likely to produce increased knowledge and behavioral change than traditional lecture-based classes.

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**WIC RD: ADJUNCT TO PEDIATRIC HEALTH CARE
PEDIATRIC NUTRITION TRAINING AND SUPPORT FOR WIC RDS³⁸
CALIFORNIA**

OVERVIEW

Location: Statewide

Start Date: 2001

Target Population: WIC Registered Dietitians (RDs), and by extension, WIC nutrition assistants, other program staff members, and the clients they serve.

Purpose: To provide formula and pediatric nutrition training and technical assistance to WIC RDs and other health professionals. In turn, clients are given accurate information on infant feeding, as a means to decrease symptoms of infant formula intolerance and allay parental anxiety.

Services: Intensive formula and pediatric nutrition training, Formula Guidebook (professional educational material), and technical assistance over the telephone regarding complex pediatric nutrition matters.

Funding: State Nutrition Services and Administration (NSA) funding covers program costs, but savings from the program in reduced use of non-contract formulas outweigh the costs.

Why Program Was Chosen: Although WIC promotes breast-feeding, there is a state staff position dedicated to providing training and support to local staff on infant formula and pediatric nutrition issues. State officials recognize that although breast-feeding is best, most WIC mothers choose formula, so staff must be able to determine which type of formula to give.

Key Challenges: Keeping the manual and training up-to-date is demanding, because of frequent changes in the formulas available and in knowledge about pediatric nutrition. Another challenge is finding the resources and staff time to regularly train new staff and retrain other staff.

³⁸ Telephone interviews, May 1 and May 6, 2003.

BACKGROUND

State Characteristics. California is the most populous state, with 34 million residents. In 2000, about 47 percent of the population was white, 32 percent Hispanic, 11 percent Asian, and 7 percent African American. Almost 40 percent speak a language other than English in the home. California's poverty rate is higher than the U.S. average, 14.2 percent versus 12.4 percent.

WIC Program Background. California has the largest state WIC program in the country, with 81 local agencies serving 1.3 million participants at 660 local clinics. About 10 percent of participants are pregnant women, 7 percent breast-feeding women, 6 percent postpartum non-breast-feeding women, 23 percent infants, and 54 percent children. The WIC caseload is diverse: 73 percent of participants are Latino, 12 percent white, 7 percent African American, and 6 percent Asian. California WIC is proud that diverse WIC staff members interact effectively with and assist the WIC population. Staff provide effective communication and understand different cultures, thereby serving as a "gateway" to other preventive health programs and health care.

Program History and Objectives. The emphasis of WIC, the American Academy of Pediatrics, and the medical community has been on promoting breast-feeding. The reality is that many WIC mothers use formula or combination feedings (both formula and breast milk). Specifically, in September 2003, only 10.6 percent of California's 293,014 WIC infants were exclusively breast-fed. Many mothers initiate breast-feeding in the first one to two weeks after birth, but by two to three months of age, more than 90 percent of California infants are on formula, either exclusively or in combination with breast-feeding. The short breast-feeding durations are due, in part, to the availability of formula in hospitals, advertising and promotion by formula companies, and the ease of using formula for women returning to work or school.

In addition, the Integrated Statewide Information System (ISIS) provides data indicating that the WIC population is becoming more complex in its ethnic, cultural, social, and health care needs. California WIC has seen an increase in pediatric morbidity and rates of medical conditions that require special formula or special feeding practices. At the same time, formula choices are becoming more complex. Issues with formula include reformulation, changes in can size, allergies and other medical conditions, types (cow, soy), nutritional quality, and new additives. When changes in these areas occurred before 2001, it took several months to communicate the changes to the 660 WIC clinics throughout the state.

State WIC officials recognized that local WIC agencies struggled in addressing infant formula and feeding, especially since no specific resources were available from the state. Officials also recognized that WIC would benefit from a cost standpoint if more formula-fed infants consumed a contract formula. Therefore, WIC staff members needed the skills, knowledge, and resources to counsel caregivers on formula use and recommend the appropriate formula for an infant. A Pediatric Nutrition Specialist with neonatal intensive care unit (NICU) experience was selected to address these issues, update the state WIC policy on formula, and provide training and technical support to local agencies and clinics.

It is difficult for practitioners to know how to treat all cases and stay abreast of current information. Therefore, the Pediatric Nutrition Specialist applied an RD training and support

model used at the University of Washington at Seattle, where a Maternal and Child Health grant funded one-week training sessions for nutritionists working in pediatric environments. After this training, ongoing support was provided through a closed listserv where nutritionists could post questions about cases and policy issues. The university provided answers and references that nutritionists could use to gain additional information and expand their pediatric practice.

Target Population. The primary target population for the training and technical assistance is WIC RDs. Other WIC staff members, hospital RDs, and other medical providers are sometimes involved. In turn, these practitioners have the knowledge, skills, and resources to improve service delivery to an increasingly complex WIC population.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. The Pediatric Nutrition Specialist conducts staff training on infant formulas and pediatric nutrition, provides technical assistance to local staff on formulas and pediatric nutrition, and updates the Formula Guidebook. (All clinics have the Formula Guidebook, which contains information from the American Academy of Pediatrics as well as nutrition information on various formulas.) If this book cannot assist the local staff members, they call the state WIC branch for technical assistance from the Pediatric Nutrition Specialist or another RD.

At the request of a local clinic or agency, the Pediatric Nutrition Specialist travels to the local clinic or agency to conduct formula training for WIC RDs, hospital RDs, or other professionals with a four-year degree in nutrition. Other pediatric medical providers are often invited, as are some WIC Nutrition Assistants and CPAs. Local agency RDs have also taken on the direct trainer role for their respective agencies. This requires less travel time for the Pediatric Nutrition Specialist, who provides technical assistance to the local trainer. In particular, the Pediatric Nutrition Specialist reviews trainer educational materials, examines formula and pediatric nutrition training presentation materials, and discusses education and treatment strategies related to difficult cases that are used for case studies.

The five- to six-hour formula training, developed by the Pediatric Nutrition Specialist, includes the following topics: WIC's goals and desired outcomes, public health principles, tools available to RDs, formula choices, the nutritional value of formula, pre-term babies and their nutritional needs, feeding issues and problems (such as reflux or constipation), cow- versus soy-based formulas, contract versus non-contract formulas, allergies and hypoallergenic formulas, the Formula Guidebook, the California WIC formula policy, health plans that will or will not cover formula, how to work with health care providers, WIC screening forms, and case studies for a group activity. Once an RD or agency director is trained, they are to pass the knowledge along to other staff in their organization. The training is not mandatory, but it is one of the few RD support systems that California WIC has to offer.

California WIC plans to extend RD education through teleconferencing, which can easily be accessed by local agencies. The teleconferences will discuss and review complicated case studies, a natural extension of the technical assistance already provided by telephone.

Participation. About 90 percent of local agencies have staff that have participated in the formula training.

Coordination and Collaboration. When the Pediatric Nutrition Specialist goes to local agencies or clinics to conduct trainings, she invites pediatric medical providers and RDs from area hospitals to attend. In this way, participants can learn about other services and resources in the community and identify opportunities for collaboration.

Publicity and Outreach Efforts. A letter is distributed to local agencies and clinics about formula changes and information. The availability of formula trainings is announced at the annual WIC conference and during site audits, and is listed in WIC's training manual.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The Pediatric Nutrition Specialist, the primary contact for the initiative, conducts the training and oversees technical assistance. Another specialist works with her directly. Three other RDs in the state WIC branch provide technical assistance to local agencies that call with questions or concerns. These three spend about 25 percent of their time on infant-feeding questions related to formula.

Record Keeping and Data Systems. California WIC devised two communication forms, to be completed by WIC RDs, to share WIC nutrition screening results with medical providers prescribing formula for medical conditions. Both the "Infant Screening and Medical Justification Form for Formulas for Medical Conditions" and the "Child Screening and Medical Justification Form for Formulas for Medical Conditions" include information on a client's feeding history, feeding practices or behaviors, medical history, and screening results, as well as the WIC RD's recommendation. The form is either given to the parent or caregiver to share with the medical provider or faxed directly to the medical provider. The medical provider completes the bottom portion, which describes the medical diagnosis, formula recommendation, recommended duration of formula, and feeding instructions. The back contains an abbreviated version of WIC policy regarding contract formula and formula for medical conditions.

Funding. The main costs for this initiative are the Pediatric Nutrition Specialist's salary, telephone calls, travel (about two trips a month), and the development, reproduction, and distribution costs associated with the Formula Guidebook. These expenses are covered in the general WIC budget.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. The state is meeting the training needs of RDs through intensive training in formula and pediatric nutrition. The attitude before was that RDs are professionals who should take responsibility for reviewing the latest research and gaining knowledge on their own, but the training evaluations revealed that RDs need and want ongoing training. With increased knowledge, support, and resources, RDs have more confidence. In turn, these RDs are providing better customer service for mothers who choose to use formula. These mothers, as well as fathers, partners, and other caregivers, are getting assistance early in the feeding process

so they can successfully feed their infant, avoid future eating disorders or problems, and parent positively and effectively.

Furthermore, California's rate of non-contract formula use has decreased. In January 2002, 4.7 percent of formula used in California WIC was non-contract. In October 2003, that figure was down to 1.7 percent. This reduction in non-contract formula use may be, in part, due to the program. RDs and local agencies have more support, and thus may be more convincing with participants in recommending contract formula. According to the Pediatric Nutrition Specialist, "the savings obtained from inappropriate formula choices far outweigh the costs for technical assistance." Specifically, California WIC estimates \$250,000 in monthly savings as a result of decreased use of non-contract formula. (This change cannot be attributed definitively to the training and the Formula Guidebook, but they seem likely to have played a part.)

Key Challenges. The project is evolving, as evidenced by the interest of local agencies in doing their own training, with technical support. The challenge is keeping up with future needs using an efficient educational format. In addition, budget constraints that limit staffing and time pose a challenge for program officials, as does the high local staff turnover, which results in an ongoing need for training.

Lessons Learned. The Pediatric Nutrition Specialist believes that if California, with the largest and one of the most complex WIC programs in the country, can put this kind of support system into place, other states can as well. California's program started out as a single staff position and has expanded to include a few additional staff giving support to the RDs in the state. Smaller state agencies may not be able to afford this level of staff, but may perhaps form consortia with other states (particularly if they join together on infant formula contracts). The apparent cost savings achieved in California suggests that such training is cost-effective.

Other states may not be able to implement this type of training, but they can take other steps to help their RDs keep up to date. Related strategies would be to encourage RDs to stay abreast of current information, whether through state or national trainings, classes, listservs, or other media. WIC branches could identify ways of sending RDs to national training for practitioners interested in pediatric nutrition, and give RDs time for professional development activities.

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BILINGUAL TRAINING PROGRAM³⁹
WISCONSIN

OVERVIEW

Location: Statewide

Start Date: 2001

Target Population: Bilingual Hmong and Hispanic WIC staff and, by extension, the Hmong and Hispanic WIC clients they serve.

Purpose: To provide more effective and culturally appropriate nutrition services to non-English-speaking Hmong and Hispanic WIC clients.

Services: Bilingual Hmong and Hispanic WIC staff receive training to become bilingual translators, certifiers, or educators for at-risk Hmong and Hispanic clients, and bilingual translators for high-risk Hmong and Hispanic clients.

Funding: In fiscal year (FY) 2003, the program received \$43,000 in funding: \$39,000 from the State WIC Program and \$4,000 from the Wausau Health Foundation.

Why Program Was Chosen: This program is innovative in that it trains bilingual staff members, or “bilinguals,” to provide nutrition education and certification services to WIC participants who are of the same culture yet do not speak English. The training curriculum and certification program can serve as a model for other programs trying to address the cultural needs of a diverse clientele.

Key Challenges: Staff have worked hard to gain acceptance for the bilingual paraprofessionals, in the face of the attitude that only professionals should provide nutrition education. In some settings, the need for bilingual professionals who can train and monitor the paraprofessionals could be a challenge.

³⁹ Telephone interview, April 17, 2003.

BACKGROUND

State Characteristics. Based on a 2001 estimate, the population of Wisconsin is more than 5 million. About 9 percent live below poverty, compared to the national average of 12 percent. In 2000, about 87 percent of the population was white, 6 percent black, 4 percent Hispanic, and 2 percent Asian. Most of the Asian community in Wisconsin is Hmong, with 0.63 percent of the state's total population Hmong (University of Wisconsin Extension and Applied Population Laboratory 2002). Wisconsin's Hmong population increased by 106 percent from 1990 to 2000.

WIC Program Background. The Wisconsin WIC Program serves more than 108,000 clients each month in 69 projects (the Wisconsin name for local WIC agencies) in 5 regions. About 24 percent of clients are infants, 52 percent children, 11 percent pregnant women, 7 percent non-breast-feeding postpartum women, and 5 percent breast-feeding women. About 4.5 percent of participants are Asian, and 18.5 percent are Hispanic. The Milwaukee/Southeast Region has about one-third of the state's total caseload and has the largest Hispanic population of the five regions. The Northeast Region, particularly Brown County (Green Bay area) has many Hispanic clients as well, as does the Southern Region (Madison, Rock County, and Walworth County). The Hmong participants are concentrated in four of the five regions.

The program provides basic WIC services, and the Farmers' Market Nutrition Program is implemented in most counties. Most of the Competent Professional Authorities (CPAs) in Wisconsin are nutritionists and dietitians, but there are also some Dietetic Technicians (DTRs) and nurses. The trainees involved in the Bilingual Training Program are usually program support staff or health screeners, not professional or paraprofessional staff members.

Program History and Objectives. State and local program officials recognized that bilingual nutrition education was necessary to meet the needs of the Hmong and Hispanic participants in the state. When a non-English-speaking client received nutrition education, a nutritionist and an interpreter were both needed, which was costly and not very effective. The nutritionist and the client could not communicate directly, and thus lost the personal interaction so critical in counseling. Several years ago, in a pilot project to promote breast-feeding among the Hmong population, WIC trained bilingual Hmong women who had breast-fed to become peer counselors. This program was very well received, and breast-feeding rates increased as mothers received support from women of the same culture. Therefore, state and local program officials decided that bilingual Hmong and Hispanic WIC staff, who were primarily in program support and health screener roles, would be trained to provide bilingual nutrition services.

Two local WIC directors developed and started bilingual nutrition education training in 2001. They worked closely with an advisory board of Central Office State WIC staff and Regional Nutritionists, which was responsible for providing insight into project development, curriculum design, planning, and implementation. The goal of the program is to provide quality and effective nutrition services that are culturally appropriate. Program officials believe that a client is more likely to make improvements in diet by working with someone of the same culture. Also, training bilingual staff could be more cost-effective than hiring interpreters to translate between English-speaking nutritionists and non-English-speaking participants.

Target Population. Bilingual Hmong and Hispanic WIC staff can participate in the Bilingual Training Program. Most participants are WIC program support staff or health

screeners. The Hmong and Hispanic clients that these bilinguals serve receive more effective and culturally appropriate nutrition services as a result of the training.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. The Bilingual Training Program is provided for bilingual Hmong and Hispanic staff in Wisconsin. Until 2003, participants were primarily program support staff and health screeners from WIC clinics, all of whom have a minimum of a high school education. To enroll in the training, local WIC projects submit a registration application form with the name(s) of employee(s) who are either Hmong or Hispanic and are interested in participating in the training. In 2003, as part of the Wausau Health Foundation grant, the training was expanded to include Hmong and Hispanic staff from local health departments, Head Start, Family Resource Centers, Community Action Agencies, and day care providers.

A Hmong Registered Dietitian (RD) conducts the training for Hmong students, and a Hispanic RD trains the Hispanic students. Both trainers are, or have been, local WIC Nutritionists. The two trainings are held concurrently every 18 months. The training lasts 8 days, and sessions are held in a central location so that all staff members can attend at once. In 2001, the training was held in three 2-day sessions and two 1-day sessions. In 2002 and 2003, there were four 2-day sessions. The training usually takes place over a 4- to 6-month period.

The Session 1/Translator training addresses basic nutrition, counseling and interviewing techniques, Hmong and Hispanic eating patterns, and confidentiality. The last three 2-day sessions are divided into nutrition education and WIC certification. After each session, participants have a take-home test and follow-up assignments to complete, and they must practice doing certifications and providing secondary nutrition education, with supervision from an RD at their local agency.

After this work in the clinic, either the Hmong or the Hispanic trainer visits the local clinic to observe the trainee providing secondary nutrition education and/or WIC certifications, depending on how the local agency uses the trainee's new expertise. If the trainer is satisfied with the trainee's performance, the trainee receives a certificate of completion and is authorized to provide secondary nutrition education and/or to certify selected low-risk participants. The trainees must complete this certification process within 1 year, but it usually takes 9 months.⁴⁰

Trainees can become translators, educators, and/or certifiers. A participant who attends the first two days of training, the translator section, can earn a functional translator certificate. A participant who attends the entire training, completes the assignments, and is approved by a

⁴⁰ Most trainees from non-WIC organizations complete assignments after the training as well. In these cases, the homework has been individualized. In some cases, the person works for a non-WIC agency, but the local WIC project may contract with that person for some translator or educator time. For these people, it is an essential part of the training to do the same homework as the WIC staff. A trainee who works for another program (such as Head Start) will use Head Start Program regulations and materials to complete the homework.

trainer, can become a CPA with the knowledge and skills necessary for WIC certifications and nutrition education for low-risk Hmong and Hispanic infants, children, and women. A trainee has the option of taking the entire course, but only completing the assignments for the translator or educator role, not the certifier role. Along similar lines, a trainee who attends only the translator session and then the sessions on, for example, children and infants, can be tested on the children and infants sections and work with only those populations in the WIC clinics as a translator and nutrition educator, not as a CPA. Trainees who miss a training session can be tested on the completed sections and then finish the remaining section(s) when the course is offered again.

Bilinguals are not qualified to certify high-risk clients, but are trained to identify such clients, who must be seen by an RD. For high-risk cases, they function as an interpreter. In addition, bilinguals can provide certification services only to Hmong or Hispanic clients, not to other groups of WIC participants.

In some of the more rural local projects, the bilingual may be in the project only one or two days during the month, and the Hmong/Hispanic participants are scheduled for those days. In larger projects, the bilingual is usually a full-time employee. Most bilinguals were initially hired as program support staff or health screeners; thus, if they achieve CPA certification, they have two roles. On some days they function as a CPA, on others, in their initial role of program support staff or health screener.

Participation. As of 2003, the program has trained 29 certifiers, 17 educators (14 from agencies other than WIC), and 24 translators. Twenty local agencies have sent staff to the training.

Coordination and Collaboration. In 2003, the Wausau Health Foundation provided funding for the program. For the program to receive this grant, the training had to be available to staff in organizations other than WIC. The curriculum was broadened to meet this need.

Publicity and Outreach Efforts. The two trainers and the Regional Nutritionists, who were on the advisory committee, promote the training at the local and state level. WIC staff promote the program throughout the year and at statewide conferences. The initiative is also publicized in the "Monthly Update," a newsletter for nurses, nutritionists, and other professionals in WIC, breast-feeding, and maternal and child health programs. In addition, flyers were distributed in 2003 to reach out to other organizations.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The State Office and Nutrition Coordinator provide general oversight for the initiative, while the Program Coordinators plan, manage, and evaluate the program. The two trainers are responsible for the development and provision of the materials; both are RDs with extensive experience in staff training and educational activities.

Training and Quality Assurance. Quality assurance is limited at this point, but it is under consideration by program officials. Charts are completed in English and reviewed by an on-site dietitian. If the staff member becomes a CPA, the project's nutritionist oversees the member's

activities through chart audits and discussions with staff. At the annual state WIC meeting, previous graduates of the training program are invited to attend a two-hour workshop on issues in maternal and child nutrition to update their knowledge.

Funding. For FY 2000 and FY 2001, the program received \$128,000 in funding through a WIC Infrastructure Funds Grant. In addition, in FY 2001, about \$40,000 was used from WIC Nutrition Services and Administration (NSA) funds. The FY 2000 and FY 2001 budget included the costs of planning, developing the curriculum and materials, providing training for those two years, trainee lodging and travel, and labor. In FY 2002, about \$75,000 of state WIC funding was used for the program, including training and ongoing monitoring. In FY 2003, program officials received a grant from the Wausau Health Foundation for \$4,000, as well as \$39,000 from the state WIC office to fund the program. In FY 2004, the state WIC office anticipates providing \$20,000. Program officials are considering partnerships with other agencies to streamline the cost of training.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. In 2001, the state agency conducted a program evaluation that had three components: (1) a written survey of 12 local WIC Directors who had sent bilingual paraprofessionals to the 2001 training, (2) a written survey of the 16 bilinguals that completed the 2001 training, and (3) telephone interviews conducted by the Hmong and Hispanic trainers of 42 participants served and 37 participants not served by the bilinguals.⁴¹

Nine of the 11 local WIC Directors who responded are using their bilinguals as nutrition educators, with 6 of these 9 having their bilingual paraprofessionals functioning as both certifiers and nutrition educators. Most felt that the bilinguals had a better understanding of WIC after the training, and were better able to explain nutrition and health concepts. In addition, the WIC Directors noted that the bilinguals are more enthusiastic and satisfied with their work, and that other WIC staff members appear more confident in the bilinguals' abilities.

The 10 bilinguals that responded to the survey felt the training helped them develop new ways of explaining nutrition and health concepts. All but one enjoyed their jobs more, particularly the closer contact with WIC families.

The telephone interviews of Hmong and Hispanic clients who worked with bilinguals indicated that they were more aware of why they were eligible for the program, more comfortable sharing health information, and more honest and open compared to similar clients who did not work with a bilingual. The bilingual certifiers and other WIC certifiers were comparable in listening to client concerns and in clients' perceptions of certifiers' knowledge.

An important caveat is that program officials would like to study the program further. In particular, they would like to compare the costs of training the bilinguals to the costs of using

⁴¹ The 2003 evaluation is complete, but the data were not available in time for inclusion in this report.

interpreters. In addition, when program officials reviewed data for the Hmong clients who had met with the bilinguals, the duration of bottle-feeding appeared higher than among WIC clients who had met with non-Hmong staff. It is possible that Hmong women were more honest in reporting their behavior with bilinguals. Therefore, program officials plan further monitoring of the amount of time children remain on a bottle following nutrition education with a Hmong or non-Hmong staff member.

Key Challenges. In the beginning, WIC RDs had reservations about bilinguals, who did not have professional training, providing nutrition education and certifying participants. Historically, RDs, nutritionists, and DTRs provide nutrition education in Wisconsin, and even nurses are not always well received by nutrition professionals. Helping local clinics see the value of having bilinguals deliver nutrition education was challenging but essential to the training's success. The advisory board and the project directors that have used bilinguals helped ease these concerns and gain buy-in from the local RDs.

Another challenge has been cultural differences. For example, among some immigrant families, it is not customary for women to travel alone to attend the training sessions and stay overnight. Some husbands were not supportive of this arrangement and wanted to accompany their spouses.

Lessons Learned. Program officials believe this initiative can be replicated. Their curriculum could be used with Hmong or Hispanic populations, or revised for different ethnic groups. Staff feel it is critical to find competent bilingual trainers who know the WIC Program and to form an advisory committee to help implement the project and gain buy-in at the local level.

Overall, this training program is a creative approach to serving pockets of non-English-speaking clients from a particular group. It seems worthy of further study. As noted, the main concern is whether it is possible for nutritionists to monitor adequately the services bilinguals provide in another language. The use of English charts and frequent discussions of cases seem like promising approaches to solving the problem, however.

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IV. INNOVATIONS IN SERVICE DELIVERY

Innovative service delivery can include providing WIC services in nontraditional locations or using alternative modes of communication (such as by telephone versus in-person, or through videos instead of written materials). Several of the programs profiled in earlier chapters include interesting innovations in service delivery. For example, the Arkansas program involved a long-distance certification process, so mothers with infants in neonatal intensive care far from home could receive breast pumps promptly. The program in Washington and Greene Counties in Pennsylvania provided peer counseling by telephone only, while most programs have an in-person component. These programs and the programs discussed in this chapter all serve rural WIC clients and seek to address transportation barriers. Other service delivery innovations, such as videos, may address literacy or language barriers.

This chapter discusses three programs that are innovative in that they include delivery of WIC services in two nontraditional settings: clients' homes and workplaces. WIC clinics are traditionally located at public health departments, hospitals, health clinics, or in free-standing buildings; satellite clinics (open only occasionally) may be in locations such as schools, church basements, or community centers. But service delivery in the home or at work remains rare.

Because of its high cost, home visiting usually implies not just services in a different location, but comprehensive and individualized services targeted at particularly high-risk clients. Because WIC funding does not cover comprehensive services, WIC services are rarely offered via home visits, unless they can "piggyback" on another program's services. At the same time, because clients view WIC positively, home visiting programs find that delivering WIC food instruments makes home visits more welcome. In both examples of home-visiting programs discussed below, WIC was collaborating with Medicaid care coordination for high-risk pregnant women and infants. The home visits were funded largely under Medicaid. WIC services provided during home visits varied, as did the frequency of home visits, but visits included delivery of food instruments in both cases.

For WIC services to be offered through home visits, WIC services must be coordinated with a home visiting program's services. The programs in northwest Michigan and in Cullman County, Alabama—both located in local health departments—are good examples of coordinated services; they coordinate at the policy, administrative, and especially the clinical levels.¹ Such

¹ The *Coordination Strategies Handbook* prepared for FNS by Health Systems Research distinguishes policy, administrative, and clinical coordination (U.S. Department of Agriculture 2002). The handbook also distinguishes three levels of closeness in how programs are related: (1) coordinated—at different locations and with different staff, but with some communication; (2) co-located—at the same or an adjacent location; and (3) integrated—under the same administrative management. The home-visiting programs described below are largely integrated, in that they ultimately are under the same division of the Health Department and at least some staff deliver services for both programs. However, records for WIC and the Medicaid care

coordination can lead to more seamless service for clients (of which coordinated home visits are just one example) and cost savings for WIC. We thus describe the range of coordinated services delivered in these programs, not just the home-visiting component, in order to clarify the context for home visits.

Workplace visits to provide WIC services are not widespread. However, as more WIC mothers enter the workforce under welfare reform, such programs may become more relevant. The program described here is on a rural Indian reservation with a small number of employers and significant transportation barriers for clients. In general, offering WIC services in clients' workplaces seems most applicable in other rural areas or areas where individual firms hire many WIC clients. For a workplace program to operate, it is important that employers cooperate. Clients must also be willing to let coworkers know they receive WIC. Such programs are clearly not appropriate in all settings. For example, the program described below, which is operated by the Eastern Band of Cherokees WIC agency, serves clients who work in motels, clerical jobs, day care centers, schools, restaurants, and stores. However, those who work in sales or service jobs that involve direct public contact have more difficulty taking time off and may lack private space to meet with the WIC nutritionist.

Overall, service delivery in homes or workplaces is an example of how WIC programs can become more flexible to meet diverse client needs. Coordination of WIC services with other programs can be an effective way to obtain both the resources and the administrative flexibility to use alternative service delivery mechanisms.

(continued)

coordination programs must be kept separate, and duplicative forms filled out at times, to meet state and federal requirements.

COORDINATION OF WIC WITH MATERNAL AND INFANT SUPPORT SERVICES² NORTHWEST MICHIGAN

OVERVIEW

Location: Grand Traverse, Benzie, and Leelanau counties, Michigan.

Start Date: 1990 in Grand Traverse, 1996 in Benzie-Leelanau (when their district health department was formed as the result of a separation from Grand Traverse County).

Target Population: High-risk pregnant women, postpartum mothers, and infants who qualify for Medicaid.

Purpose: To provide one-stop services to pregnant and postpartum mothers and infants, improve their access to services, and increase revenues for the health department.

Services: WIC services are provided in conjunction with a Medicaid-funded program of intensive support services (Maternal and Infant Support Services [MSS/ISS]) for pregnant women and new mothers, involving monthly meetings with a nurse, dietitian, or social worker. Some of these meetings occur through home visits, allowing in-home WIC coupon delivery, nutrition education, and occasional recertifications. Other health department services, such as family planning and immunizations, are also closely integrated. MSS/ISS will also pay for public or private transportation, if needed.

Funding: Medicaid covers much of the cost of the coordinated services through the MSS and ISS programs.

Why Program Was Chosen: These programs include strong coordination of services, improved health care access in a rural area through the use of home visits, and good “leveraging” of funding. WIC is used as a “carrot” to draw clients into the MSS/ISS program, and WIC, in turn, benefits from the Medicaid funding, which provides a per-visit reimbursement for MSS and ISS. These practices likely contribute to higher participation rates, more efficient operations, stronger financial status for the health departments, and better services for the community.

Key Challenges: Working out the logistics of integrated services—such as procedures for ensuring the security of food coupons on home visits—was an initial challenge. On an ongoing basis, the nurses providing both WIC and MSS/ISS services found that it was important to be clear with each other on division of administrative responsibilities and to communicate regularly with clerical staff about challenges they faced.

² Telephone interview, April 18, 2003; site visit, August 6-7, 2003.

BACKGROUND

Community Characteristics. This program operates in three Michigan health departments: Monroe County, Grand Traverse County (GT), and Benzie-Leelanau District (B-L). Other forms of coordination occur in other health departments in the state. We visited GT and B-L, which are both in the northwest “little finger” area of the Lower Peninsula of Michigan, and we will focus our discussion on these programs. This area comprises largely rural communities and small towns along Lake Michigan and Grand Traverse Bay; Traverse City is the largest city in the area, but none of these counties is considered metropolitan. Tourism and farming (especially cherries) are important industries. The population is over 95 percent white, with small pockets of Native Americans and Hispanics. Poverty rates are low, ranging from 5.4 percent in Leelanau to 5.9 percent in GT to 7.0 percent in Benzie County, versus 10.5 percent for the state on average (1999 data from the 2000 Census). Benzie and Leelanau counties are low in population and more rural than Grand Traverse; their combined health department is one of the smallest in the state.

Target Population. WIC and MSS/ISS coordination is targeted to low-income, high-risk pregnant and postpartum women and their infants. Medicaid (or other state or federally funded maternity care programs) must cover the pregnant woman or infant to be eligible for MSS/ISS services. Mothers or infants must also have one or more risk factors. For pregnant women, being a teenager or suffering from substance abuse, homelessness, or stress are among the risks that qualify them for MSS. As in WIC, the risk factors are sufficiently broad that essentially everyone who is income-eligible can qualify. Risk factors for ISS are somewhat more limited, but also include babies with eating/feeding problems, prematurity, or low birth weight.

Staff reported that most clients are white and many stay home or work part-time (or irregular or evening hours) in low-wage service jobs. Some are seasonal workers in the tourist industry. In GT, many have some college education. B-L has a migrant camp with largely Spanish-speaking residents, which are served by a migrant health center that hosts a Health Department satellite WIC clinic once a week in the summer. Hispanics are about 5 percent of clients in GT and about 14 percent in B-L. Language barriers can be a problem in serving them, as there are no Spanish-speaking staff members in B-L and few in GT. The migrant health center supplies a translator, and in the B-L offices they use a telephone service or a local volunteer if the client does not bring someone to translate. The GT health department sees fewer Native Americans clients than in the past, as a local casino has given them higher incomes. However, B-L has seen Native Americans increase from 5 to 8 percent of the caseload since 1997.

Lack of housing and lack of good jobs are the major challenges for clients in the area. Housing can be very expensive, because the demand for summer homes drives prices up, and homelessness is a concern. Many jobs are seasonal or have irregular hours, and there are few opportunities for advancement. GT staff did not see access to health care as a major problem in the area; there is a large regional hospital, services from the health department, and an adequate supply of doctors who take Medicaid. In B-L, staff were more concerned about access, as they find that local providers accept only limited numbers of Medicaid clients. Distance to health care providers and jobs with no health care benefits are also concerns for many members of the community.

WIC Program—Grand Traverse. The GT WIC program served about 1,800 clients in March 2003, including about 200 pregnant women.³ The main clinic in Traverse City is open 5 days a week, and there are two satellite clinics—one in Kingsley open once a month, and one in Interlochen open one day every other month. At the main clinic, they schedule one day a week to be the nutrition education and coupon pick-up day for clients who are in the middle of their certification period. On that day, there are “parent sharing sessions” each hour from 8 A.M. to 6 P.M. On the same day, MSS/ISS nurses do intakes for pregnant women into MSS and WIC; this is described further below. The other four days of the week are largely for certifications and recertifications (for those other than pregnant women). The GT clinic has extended clinic hours on some days, staying open until 6 P.M. instead of 4 P.M., and will serve walk-in visitors whenever possible.

In GT, there are 15 nurses and 1 nutritionist who provide WIC services; 10 of the nurses and the nutritionist also provide MSS/ISS services.⁴ The nurses rotate their hours between WIC and the other health department programs. In general, the nurses see clients on two clinic days a week in the various programs (WIC, MSS/ISS, Immunizations, Reproductive Health). Other days are used for paperwork, meetings, or home visits. Some of the nurses work part-time.

WIC Program—Benzie-Leelanau. The B-L WIC program served about 700 clients in March 2003, including about 70 pregnant women. There is a weekly clinic in each county at the health department offices—one is in Lake Leelanau and the other in Benzonia—one in Thompsonville, which is open once a month, and the migrant clinic, which is open once a week during the summer months (June to October).

At Lake Leelanau, staff run a WIC clinic for a full or half day each week (depending on demand), and they provide the immunizations at the same time, so families are able to get all services in one trip. The caseload is too small to run nutrition education classes in Leelanau, so nutrition education contacts are often one on one. Each pregnant client sees the nutritionist at least once—this counts as an MSS visit if they are enrolled in MSS. The nurses assess weight gain (and growth for infants) at each visit. The regular WIC appointments, when not combined with MSS, are set up at the rate of 20 per day. The appointments, depending on the type, are for 15 to 30 minutes with each client. If a mother has several children on WIC, she receives several consecutive appointments. The scheduling is similar in Benzonia.

There are five nurses and four clerical staff at B-L—two nurses and two clerical staff in Lake Leelanau, and three nurses and two clerical staff in Benzonia. Staff at each site may travel to the other site to fill in, or for meetings or special events. The Director of Personal Health is a nurse, but she does not carry a caseload.

³ Participation figures reflect food coupons issued. They are based on participation reports for March 2003 provided by the state WIC agency.

⁴ GT also had a part-time nutrition educator who conducted classes, but she was about to be laid off.

Program History. The integration of WIC and MSS/ISS services developed gradually at GT. The MSS program began in 1988, and ISS was added in 1993. A new supervisor for both WIC and MSS joined the agency in 1990, and she worked to integrate the services. First, they cross-trained all the nurses in both WIC and MSS (and later ISS) and began doing combined intakes. The second stage of integration, several years later, was when they began delivering WIC coupons as part of MSS/ISS home visits, along with WIC nutrition education contacts. The major challenge was figuring out a system for issuing the coupons in advance of the visits and ensuring their security. In the last three years, as a third step, the GT WIC nutritionist has taken on a bigger role in the MSS/ISS programs. She now meets with every pregnant woman in MSS on one of the clinic visits, and manages some ISS cases.

The B-L District Health Department opened in 1996 with all new staff. They integrated services from the beginning, in part because of necessity, since the staff was so small. B-L took the concept of integrated services and the approach to scheduling from the Northwest Michigan health agency in Charlevoix, as they shared their administrator in the early years of the B-L health department.

PROFILE OF INNOVATIVE PROGRAM

The MSS/ISS Program. The Maternal and Infant Support Services programs are case management programs for high-risk pregnant women, new mothers, and infants. Funded through Medicaid, the programs are intended to prevent infant mortality and promote healthy development. The MSS/ISS program is statewide, but services are provided in much of the state through Medicaid managed-care plans, and are not generally integrated with WIC services. In Northwest Michigan, they have generally not had Medicaid managed care that provides MSS/ISS, so the health departments provide these services.

MSS involves up to nine visits during pregnancy and the immediate postpartum period, generally on a monthly basis. The first visit is an in-depth assessment/screening with a nurse. After the assessment, the full MSS team (all nurses who provide MSS services, the nutritionist, and the social worker) meets to develop a plan of care for the client. The second visit in Grand Traverse is a combined visit to the nutritionist and the social worker. This “RD/MSW” day occurs about once a month. The nutritionist goes over a nutrition plan with each client, and the social worker can help them address any housing, transportation, or family issues. In B-L, clients are also scheduled with the Registered Dietitian (RD) and the social worker (Master’s in Social Work or MSW) early in pregnancy, and further visits are scheduled as needed after the plan of care is reviewed by all members of the MSS team. The nurse who conducted the intake generally makes the remaining visits after the assessment, but there are exceptions. For example, some mothers may need to see the nutritionist again due to a special need. At least two of these visits are supposed to be home visits, if possible, including the one immediately after the birth, which may include enrolling the newborn on WIC. In some cases, the nurses make more than two home visits, with the major reason being transportation problems that make it difficult for the woman to come in. Other situations in which home visits occur more than twice include pregnant women who are on bed rest, mothers with child care problems, and, sometimes, women who did not come to their scheduled appointment at the office—staff try to avoid losing them.

ISS is delivered entirely through home visits. Medicaid funds 10 visits for most cases, but can fund 9 more if the baby has a medical problem, and up to 37 if there are drug or alcohol problems in the family. In general, the same nurse who saw the family during the pregnancy also follows them after the birth. Staff usually visit once a month, but sometimes, for older children, they visit every other month. In GT, the nutritionist handles some ISS cases instead of a nurse, particularly if there is a growth or feeding issue, such as tube feeding, failure to thrive, chromosomal problems, or children older than 1 year who are on formula for a special health care need.

Each MSS/ISS staff member, whether nutritionist, social worker, or nurse, is a support person and is not providing primary care. The nurse does crisis intervention, parenting education, and health and nutrition education, and provides the mother with moral support and connections to other resources, as needed. The staff follow up by telephone frequently. For example, telephone calls are made to schedule appointments, follow up with no-shows, check in with the client's doctor, or make referrals to other agencies, such as the Family Independence Agency (FIA), which is Michigan's Temporary Assistance for Needy Families (TANF) program.

How WIC Services Are Integrated with MSS/ISS. WIC and MSS/ISS intakes are integrated. In GT, when a pregnant woman calls to sign up for WIC, she is scheduled for a combined intake appointment, which lasts about an hour. In that initial appointment, she first meets with the prenatal outreach and advocacy staff member (a skilled clerical position), who screens her for Medicaid (and enrolls her, if needed), whether she has a prenatal care provider, and income-eligibility for WIC. After this, she sees a nurse to screen her for MSS and WIC nutritional risks. The overall goal is to offer pregnant women the full range of services. These appointments are available one day each week.

Intake is also coordinated in B-L. When a pregnant woman calls to sign up for WIC, she is generally placed on the schedule for a combined WIC/MSS intake. If a woman comes in for a pregnancy test, and it is positive, the staff also try to schedule a WIC/MSS intake for her. Joint scheduling does not always work in B-L, however, because of timing. The MSS clinic is held on only three days a month, but WIC rules require that a pregnant woman be seen within 10 calendar days after her initial call. Sometimes, initial visits can be coordinated with clerical and MSS staff on a nonclinic day.

When clients come in for the intake appointment, the nurses do not emphasize that WIC and MSS are separate programs, but instead describe how they are going to receive WIC coupons and also periodically see a nurse who will check on how they are doing and answer any questions they may have about their pregnancy. Many clients refer to the nurse as their "WIC nurse," even though she is providing primarily MSS services.

Over time, as noted above, clients see the same nurse for WIC and MSS/ISS services. In particular, MSS/ISS clients can arrange to pick up their WIC coupons during an MSS office visit, or to have them delivered by the nurse during a home visit. When nurses bring WIC coupons, it makes home visits welcome, and is particularly convenient for clients who lack transportation. Many of the parenting education contacts during these visits (and the weight checks) can also be counted as WIC nutrition education contacts. For example, most ISS visits involve discussions of breast-feeding issues or age-appropriate infant feeding. However, WIC

recertification usually requires an office visit. The nurses will try to do recertifications in the home if the mother has particular difficulty getting to the office, but the test for iron levels requires equipment that is not easily transported. The recertification that is easiest to do in the home is the “midcheck” for infants around 6 months of age, as no blood test is required at that point for most babies.

Another way in which services are integrated is that the nutritionist has a key role in both programs; in GT, as noted above, she carries an ISS caseload. In addition, the breast-feeding support component of the two programs is integrated. The WIC Coordinators in GT and B-L both have special certification in lactation (one is an Internationally Board Certified Lactation Consultant [IBCLC] and one is a Certified Lactation Educator). Because of this certification, the WIC Coordinators can provide home visits to new mothers to address lactation issues or provide lactation consultations in the office. These visits are charged to MSS. However, it is WIC that provides training in breast-feeding for the nurses and provides breast pumps to give or lend to new mothers. (The Healthy Futures program, described further below, also helps promote breast-feeding.)

Participants Served by Joint Services. In Grand Traverse, about 50 percent of pregnant WIC clients are in MSS; most who are not in MSS are those with private insurance. The MSS program serves about 120 women a month. In Benzie-Leelanau, about 80 percent of pregnant WIC clients are in MSS; the MSS caseload is about 55 women a month. In some cases, women who have been in MSS previously or have had previous children may opt out of the services.

Not all MSS clients continue in ISS. In Grand Traverse, about 75 percent of families continue from MSS to ISS; the caseload is about 90 infants each month. In Benzie-Leelanau, staff estimated about 80 percent continue, which would be a caseload of about 44. The most common reasons for not participating in ISS include returning to work and losing Medicaid coverage. In addition, some experienced mothers do not feel they need the services.

Coordination with Additional Programs. There are many ways in which these health departments coordinate services for pregnant and postpartum women and infants, in addition to the coordination between WIC and MSS/ISS. Since spring 1998, both GT and B-L have participated in a program called Healthy Futures—the program covers any birth at Munson Hospital, the only hospital in the area for giving birth. Federal Maternal and Child Health block grant money funds this program. Every mother, while in the hospital, is offered a home visit from a nurse within the first weeks postpartum. The nurses from the health department do these visits, although the hospital maintains a central registry for the program. The nurse does an assessment for WIC, Medicaid, and ISS and makes referrals to these programs as appropriate. The nurse will also follow up by phone. Healthy Futures visits reach 75 percent of first-time mothers, which helps increase awareness of and participation in WIC and ISS. Healthy Futures is an important mode of outreach to those who do not know they qualify. It may also have helped increase WIC breast-feeding rates in these counties, as it provides a personal visit to mothers right after the birth that includes breast-feeding assistance, if needed.

Other services that are coordinated with WIC and MSS/ISS include Medicaid enrollment, reproductive health services, and immunizations. During the WIC/MSS intake visit for pregnant women, if they are not already enrolled in Medicaid, they are screened for Medicaid eligibility.

If eligible, they can complete the first steps in the enrollment process without having to visit the FIA office. This enrollment process is especially helpful for women in B-L, who would otherwise have to travel 20 to 30 miles to Traverse City. The health department nurses can also offer reproductive health services during ISS visits or arrange for clinic appointments, as both health departments are Title X providers. In addition, they make immunizations available at the same time children are coming in for WIC appointments, and monitor immunization status during ISS visits. Finally, they provide referrals to a range of other programs, including FIA.

Publicity and Outreach Efforts. The health departments each have a brochure on MSS/ISS services that is distributed to various agencies to give to their clients. They also do outreach to physicians in the area about both WIC and MSS/ISS. In GT, WIC and MSS/ISS staff work with Planned Parenthood, the Pregnancy Resource Center (a Christian group), FIA, and the Women's Center. In turn, all these groups refer pregnant women to the combined WIC/MSS program. In B-L, health department staff send brochures on WIC and MSS every six months to local day care providers, Head Start centers, and family practice physicians. They put up WIC posters in local grocery stores and other community locations, and check on them every six months. Both GT and B-L also distribute information at health fairs and community events.

In all these counties, health department staff also work extensively in coalitions with other social service agencies, and they reported that these contacts are often very important in getting the word out about their programs.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. Both programs visited were in small health departments, with one supervisor, the Director of Personal Health Services, in charge of WIC, MSS/ISS, and several other programs. The Director in B-L works part-time and shares some supervisory duties with the MSS/ISS Coordinator, who is based at the other clinic. Both supervisors are very committed to integrated services.

In each office, one senior nurse serves as the WIC Coordinator and another as the MSS/ISS Coordinator. The Coordinators generate reports for the state, coordinate training and quality control in the rules of the specific program, and serve as the primary resource for staff with questions about program rules. They also provide line services. The WIC Coordinators at both sites have special training in breast-feeding support. The WIC Coordinator in GT is an IBCLC, and the WIC Coordinator in B-L is a Certified Lactation Educator. In each case, the health department funded the coursework and training for their credential.

Other nurses in these health departments have their own areas of specialty, such as reproductive health or HIV counseling, but, in general, "everyone does everything." In particular, most nurses provide both WIC and MSS/ISS services. The clerical staff is also cross-trained in all clerical aspects of each program.

Coordination of Paperwork and Record Keeping. The WIC and MSS/ISS programs have separate policy and procedures manuals and separate paperwork in separate program charts, but staff try to make services seamless from the client perspective. Most of the records are in hard

copy, although some information from the intake interview is entered into the statewide WIC automated system. A major reason that the records must be kept separately is that MSS/ISS is covered by HIPAA, the law that protects the confidentiality of health information, whereas WIC is not. Thus, MSS information cannot go in the WIC file. In GT, they simply note in the WIC file if there was a visit under MSS and the general reason for the visit. In B-L, a copy of the WIC health history is kept in the MSS or ISS chart. In the WIC charts, a notation is made that the client is enrolled in MSS or ISS. In both offices, nurses try to mesh the WIC and MSS Health Histories during the initial interview so they do not have to ask the same things twice—but they must fill out both forms. In B-L, the MSS chart also includes a visit log that tracks all visits and calls, including calls to physicians and FIA and any other community resources to which the client was referred. One challenge is for nurses to remember to check both charts when a visit is for both programs.

Staff Training and Quality Assurance. The WIC Coordinators go to state-sponsored WIC trainings and report back what they have learned. Others attend if funding is available, particularly if the training is nearby. The WIC Coordinators spoke favorably about the state-level training in facilitated group discussion and in the infant/child feeding approaches of Ellyn Satter.⁵

In each office, there is a monthly, all-day meeting of all staff (including clerical staff), which includes updates on each program and training in any new procedures or policies. In B-L, chart reviews are also conducted to make sure staff are following procedures consistently. The WIC Coordinator and MSS Coordinator review charts for their programs.

Funding. Staff must charge their time to WIC and MSS/ISS separately. GT did a study of how much time during an intake appointment was spent on WIC and found it was about 15 minutes. So, initially, they charged 15 minutes to WIC and the remaining time, about 45 minutes, to MSS. Later, they started charging the entire visit to MSS, as they realized that the process of enrolling the client in WIC fell under the definition of MSS screening. Overall, the program leads to savings for WIC; the only increased cost is for coordinating issuance of food coupons with home visits, which is now routine.

MSS/ISS funding has been secure. In fact, rates were increased a few years ago. The major change has been as Medicaid has moved into managed care, managed care organizations need to approve MSS visits for their clients. There is only one Medicaid managed care provider in GT and none in B-L, however, so clients still have the option of seeing fee-for-service providers (including the health department).⁶

⁵ See the profile of the Learn Together Approach training in Chapter III.

⁶ Clients must always have at least two options for care.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. Most state Medicaid programs now have case management programs for high-risk pregnant women and infants. However, many have not integrated these services with WIC. The programs in GT and BL are strong examples of program integration in terms of management, staff, and client services, although the programs remain administratively separate.

It is difficult to assess the role of the integration of services in outcomes for these programs, as many other factors may be at work. Nonetheless, program staff believe that they are serving more eligible women in WIC and MSS/ISS than they would if the programs were not coordinated, and achieving better outcomes (such as higher breast-feeding rates). Although by no means conclusive, some data suggest that these counties may serve a greater percentage of the target population than elsewhere. In particular, the percentage of infants on WIC and Medicaid is about equal to the state average in GT and higher than the state average in B-L (based on data from the Michigan WIC Website), although the poverty rate in both areas is lower than the state average. Both health departments certify new mothers as breast-feeding at about twice the rate as the state as a whole. However, this probably reflects a local environment sympathetic to breast-feeding and the effects of the Healthy Futures program as well as the effects of the integrated services. Furthermore, staff reported that providing WIC coupons during MSS/ISS home visits or MSS office appointments reduced the proportion of “no-shows” for the MSS/ISS appointments.

Another important outcome from the point of view of program staff is the ability to draw on federal funds more effectively to support the combined services, as Medicaid reimburses for MSS/ISS services on a fee-per-visit basis, while WIC nutrition services funds are related only to the number of clients. This is particularly important in a tight budget environment.

The programs have not done studies of client satisfaction, and even if they had, there is no way to compare clients’ views to what they would have been in a less integrated program. However, staff uniformly reported positive feedback from clients moving to the area from other parts of the state, in terms of access to services.

Nurses in both offices reported that their ability to deliver a wide range of services makes their jobs much more satisfying, for several reasons. First, they can try to help clients receive whatever services they need, as they are trained in all the health department programs and well linked to other community services. Second, they can follow up with MSS/ISS clients over time, so they become familiar with their situations. Finally, several reported that they find their job’s variety keeps it challenging and rewarding.

Key Challenges. As discussed earlier, the major operational challenges were developing systems for ensuring the security of food coupons delivered to clients during home visits and arranging clinic schedules to provide joint services effectively. Keeping up with the paperwork for both programs can also be a challenge.

Because the nurses work on multiple programs, they learned that it is important to be clear about the division of administrative responsibilities for each program, such as ordering supplies, or these tasks can fall through the cracks. In addition, it is important to be sensitive to the needs

of clerical staff, who may have more difficulty juggling their tasks than the nurses realize. For example, clerical staff had to learn to handle the demands of generating WIC food coupons both for WIC appointments and for MSS appointments. The nurses reported that the monthly staff meetings were useful forums for working out these issues.

Lessons Learned. Medicaid-funded programs to provide case management to high-risk pregnant women and infants are natural partners with WIC, as they target the same populations and share the major goals of improving birth outcomes and the health of mothers and children. Program staff in the three northwest Michigan counties identified several factors that they felt contributed to successful service integration in their programs:

- The WIC and MSS/ISS programs were operated by the same agency and had one manager with responsibility for both programs.
- Each agency's management and staff were committed to a client-centered approach—they wanted to provide clients with the services needed in a seamless fashion, and keep the paperwork for the separate programs in the background.
- Staff and management worked together to make the logistics work, particularly in the areas of scheduling appointments and tracking WIC food coupons that were to be delivered during home visits. It is important not to overwhelm nurses and clerical staff with their varied responsibilities. In turn, staff need to be organized and able to juggle.
- WIC is a useful way to draw clients into an intensive case management program. It is also important to offer the services to clients positively, and as a package.

Most staff also felt that service integration was most appropriate in small agencies, where staffs are small and caseloads tend to be smaller as well. One noted that paraprofessionals sometimes handle scheduling and assessments in larger WIC agencies, which implies that procedures cannot be as flexible. However, one manager argued that some integration is possible in larger agencies, as long as services are co-located. She had worked in a larger WIC agency, and said that her former agency was now working on integrating WIC and MSS/ISS services to some extent.

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STEPS AHEAD/WIC COORDINATION⁷ CULLMAN COUNTY, ALABAMA

OVERVIEW

Location: Cullman County, Alabama.

Start Date: Steps Ahead began about 10 years ago; collaboration with WIC in Cullman County occurred gradually—current staff were not able to say exactly when the process started.

Target Population: Low-income pregnant and postpartum women eligible for both Medicaid and WIC.

Purpose: The purpose of the Steps Ahead program is to ensure that every pregnant woman has access to medical care, with the goal of lowering Alabama’s infant mortality rate and improving overall maternal and infant health. The program collaborates with WIC as one way to reach these goals.

Services: In Cullman County, the Steps Ahead program is coordinated closely with WIC, as both programs are run out of the county health department. Staff coordinate initial appointments for WIC and Steps Ahead and do cross-referrals. In addition, Steps Ahead funds a home visit for high-risk women immediately after the birth. Among other services, the nurse who conducts these home visits is able to do WIC certifications or recertifications and to issue WIC food coupons to the new mother.

Funding: The Cullman County Health Department is a subcontractor to Alabama Maternity, Inc., which operates the Steps Ahead Program. Services are billed to WIC or Steps Ahead as appropriate, including time spent on home visits. Staff are all state employees.

Why Program Was Chosen: The program is an example of coordinated case management between WIC and Medicaid for pregnant and postpartum women, which sometimes results in delivery of WIC services via home visits. It also operates in a rural setting, where transportation to appointments can be a barrier. Specifically, appointments are coordinated, so women can receive needed services at the same time. Follow-up with no-shows is also coordinated. To augment the “one-stop services” further, families can also enroll in Medicaid at the Health Department.

Key Challenges: About 10 percent of clients typically do not show up for their appointments or make an effort to reschedule, in part due to significant transportation barriers.

⁷ Telephone interview, April 11, 2003.

BACKGROUND

Community Characteristics. Cullman County is a rural county in northern Alabama with a population of about 78,000 in 2001. It is largely agricultural but also has some manufacturing firms. The county is located halfway between Huntsville and Birmingham, about 45 miles from each. It has few minority residents (5 percent), unlike the state as a whole (30 percent). Although median income is slightly lower than that of Alabama overall, the percentage of residents in poverty is also lower (13 percent versus 16 percent for the state), based on Census data for 1999.

Target Population. Pregnant and postpartum women who participate in both Steps Ahead and WIC receive coordinated services. Pregnant women who are on Medicaid and wish Medicaid to cover their maternity care and delivery are required to have their care coordinated through the Steps Ahead program, with coverage continuing for about 60 days after the birth (until the end of the month containing the 60th day). When pregnant women call in for a WIC appointment or an initial Steps Ahead appointment, they are scheduled for a joint intake for both programs, unless they have other medical coverage.

WIC Program Background. In March 2003, the monthly WIC caseload in Cullman County included 350 prenatal women, 217 postpartum women, 122 breast-feeding women, 31 exclusively breast-feeding women (no formula), and 672 infants. The county health department serves as the WIC agency and site of the only WIC clinic in the county. Three staff members work primarily on WIC—the WIC nutritionist, the WIC Coordinator (who is a nurse), and a WIC clerk. However, all nurses at the health department are trained to do WIC certifications, and all clerks are trained to issue vouchers.

Program History and Objectives. Collaboration between WIC and Steps Ahead care coordination happened naturally in Cullman County because both programs were located in the health department and run by health department staff. In many areas in Alabama, WIC and the Medicaid maternity care coordinator are in separate locations, which makes it much harder to coordinate services. There are other communities in which the health department handles both functions, but they are not coordinated as in Cullman.

PROFILE OF INNOVATIVE PROGRAM

The Steps Ahead Program. In 1988, Alabama began the Alabama Medicaid Maternity Care Program (AMMCP), which established locally coordinated systems of care so that women on Medicaid would receive maternity services in environments that emphasize quality, access, and cost-effectiveness.⁸ The purpose of the program is to ensure that every pregnant woman has

⁸ Until 1999, the AMMCP operated on a waiver system that had to be renewed every two years and relied on primary contractors for implementation. Primary contractors established and monitored delivery care systems, frequently subcontracting out to service providers. Primary contractors included hospitals, federally qualified health care centers, county health departments, and nonprofit organizations. However, in 1999, the state elected to convert the waiver program to a state plan option. This changed the waiver program to an operational program, which

access to medical care, with the goal of lowering Alabama’s infant mortality rate and improving overall maternal and infant health. The AMMCP is organized into 14 maternity care districts. Cullman County is in District 5, which consists of nine counties. Services are provided by Alabama Maternity, Inc., and the program is known locally as Steps Ahead.

Steps Ahead provides maternity care to women who choose to use Medicaid to pay for their maternity costs. Benefits include covered costs of maternity care, delivery, and hospital care. In Cullman County, there are two hospitals that provide primary care services for Steps Ahead clients. The care coordinator and registered nurse, who are health department employees, provide care coordination and health education services under a subcontract with the Steps Ahead program. During their pregnancy, women must see the care coordinator three times. Doctors will not see Medicaid patients for prenatal care unless they have a referral slip from the care coordinator.

First, the care coordinator (also considered to be a social worker or case manager) completes a social assessment on a new program participant. Assessments are conducted at the health department, which also houses the local WIC agency. In fact, the staff focused on the two programs have adjoining offices.

During the assessment, the care coordinator attempts to get a sense of “what is going on in the person’s life” so that she can determine if a home visit would be appropriate. Typically, a Medicaid client must be categorized as “high risk” to qualify for a home visit.⁹ For example, women who qualify include those who are HIV positive, have a history of drug or alcohol abuse, suffer from a mental condition, have experienced domestic violence and/or child abuse, are late entrants for prenatal care, are expecting twins, or are under 20 years old and have two or more children.¹⁰ However, the care coordinator can use discretion if she thinks that a client warrants a home visit. For example, lack of transportation to a health care facility is a serious barrier for this rural county; there is only one private transportation company in the county, which is funded through a federal grant program. Medicaid participants can get travel vouchers to use the company’s vans free of charge.

Frequently, the care coordinator knows from the start whether someone would qualify for a home visit (for example, a pregnant teen who already has a child or a woman who will deliver

(continued)

alleviated the need to renew the waiver every two years. This change led to a shift in program rules and the use of a different system of contractors.

⁹ Before 1999, home visits were required for all women—the visits were automatically a part of service delivery. After 1999, Medicaid revised their guidelines and developed criteria for home visits. However, officials included an “other” category that granted the care coordinator some discretion in requesting a home visit.

¹⁰ Low birth weight is a common trigger for a home visit. However, the care coordinator remarked that the “home environment” (for example, domestic abuse, drug abuse) is a more common reason for a home visit than a medical condition.

twins), but sometimes certain factors do not emerge until the second or third pregnancy appointment (for example, domestic abuse). Once the care coordinator determines that a client is at high risk, an appointment for a home visit is scheduled that will take place 10 to 20 days after delivery. The registered nurse conducts the visit, which involves a range of services. An average visit lasts 1 to 1½ hours, and some last as long as 2 hours.

During the home visit, the nurse measures the infant's weight, height, and blood pressure, and asks a series of questions to make sure that the mother's health—as well as the baby's—is good overall. Most time is spent on this health assessment. If there is a medical concern, the nurse notifies the doctor from the home (or from the Health Department if there is not a phone) and makes an appointment. Otherwise, the doctor follows up with the patient directly. In addition to general health assessments, the nurse can provide selected WIC services (see next section below), make referrals to a variety of social services, discuss nutrition education, conduct family planning counseling, and counsel on breast-feeding. (Mothers have already decided whether they want to breast-feed or not, so she also can address issues such as latch-on problems.) Further, the nurse completes a questionnaire to evaluate the state of the home environment, which covers topics such as safety, income sources, presence of the father, and child care resources. The care coordinator collects these questionnaires and keeps them in the clients' files.

Program participants qualify for care coordination only for about 60 days after giving birth. Therefore, mothers must see the care coordinator for a postpartum appointment four to eight weeks after the home visit. During this “postpartum encounter,” the care coordinator verifies that the clients have kept their appointments with the pediatrician and obstetrician/gynecologist and are following up with their birth control method. The care coordinators also refers mothers back to the pediatrician if they are having trouble with breast-feeding, are dissatisfied with their formula, or are having any health problems.

How WIC Services Are Integrated with Steps Ahead. Co-location offers an opportunity to coordinate services more easily than in other maternity care districts throughout Alabama. The two programs have coordinated intake procedures. Therefore, new clients coming into WIC for the first time see a nutritionist for WIC certification and then see the Medicaid care coordinator, who can refer clients to hospitals, conduct social assessments, and make doctor's appointments. Similarly, clients who come to see the care coordinator but are not on WIC have a WIC appointment set up as well. WIC and Steps Ahead have designated Wednesdays and Fridays as “New WIC Maternity Days.” Staff from both programs can do referrals on any day of the week, but these two days have been ‘tagged’ so that staff can anticipate clients coming in for multiple services.

WIC and Steps Ahead also try to coordinate other appointments. Consolidated service delivery is especially helpful for participants who have trouble accessing transportation. Thus, a WIC client who comes in to pick up a food voucher can also have one of the three pre-delivery appointments with the care coordinator. A Medicaid caseworker is also on site to enroll eligible women and children in Medicaid. Staff work together to ensure that clients who qualify are enrolled in Medicaid and WIC and that they are receiving prenatal care. Staff from both programs verify when a particular client had her last WIC appointment (or maternity care appointment). According to the care coordinator, if a client has missed one type of appointment,

chances are high that she has missed another. To prevent this, the coordinator and WIC nutritionist can make appointments for the other program (they share the same computer system). They also work together to track down clients. For example, if a client missed an appointment with the care coordinator, the coordinator flags her WIC card with a colored tab so that, if she comes into the WIC office, WIC staff know to notify the care coordinator that the client is in the building and should come to arrange an appointment. (A similar system is used by WIC staff.)

Finally, the nurse who conducts the Steps Ahead home visits is trained to provide some WIC services during the visits. She can do certifications and recertifications. Most women that she visits have enrolled in the WIC program prenatally; only 2 to 3 percent of her caseload are new WIC certifications. The nurse does, however, process many recertification cases (that is, when a woman must be recertified in the transition between prenatal and postpartum, and the infant as well).¹¹ She also can certify the infant. The nurse can also issue food vouchers to mothers and informs them that free breast pumps and breast pads are available at the WIC agency.¹²

Participation. The care coordinator for the Steps Ahead program has, at any given point, a caseload of between 250 and 300, but these figures do not include those who are due for “last appointments” postpartum. There are about 12 new WIC/Steps Ahead clients each week, and she refers 3 out of the 12 for a home visit. Overall, she estimates that about 95 percent of Steps Ahead patients receive WIC.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. The current maternity care coordinator, a licensed social worker, is the primary contact for the Steps Ahead Program.¹³ If doctors or hospital staff have questions or concerns, she is available for consultation. She also conducts the social assessments and all required appointments, principal and postpartum. The registered nurse assumes responsibility for conducting the home visits. The WIC coordinator ensures that the nurse receives any policy changes in the WIC program. The care coordinator works full-time on the Steps Ahead program. The registered nurse works partly on the Steps Ahead and partly on other health department programs, but home visits for Steps Ahead are her priority.

Funding. The Steps Ahead program is funded entirely with Medicaid dollars. The Health Department bills Steps Ahead (and they bill Medicaid) using a flat rate of \$200 for three appointments with the care coordinator throughout the pregnancy and a postpartum session, and \$60 for each home visit. They can also bill Medicaid if a client moves out of the district or has a miscarriage before completing all the visits. The amount of the fee depends on the number of

¹¹ Blood work may be completed at a later visit.

¹² WIC mothers of high-risk infants can borrow electric pumps, and manual pumps are distributed to keep.

¹³ To be a care coordinator for the AMMCP, a person must either be a licensed social worker or a registered nurse.

appointments with the care coordinator. If a client does not show up, the Health Department can bill for the visit if there have been three unsuccessful attempts to contact the client. The WIC program is charged for the part of the home visit involving WIC.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. Program officials listed several program successes. First, clients often do not know about many of the resources that are available to them before meeting with the care coordinator. For example, many postpartum mothers do not know about child care subsidies. The care coordinator's role in making referrals for a wide range of services is "a huge benefit." The WIC coordinator thinks that the collaboration between Medicaid, Steps Ahead, and WIC helps ensure that clients enrolled in only one program, but qualifying for both, have access to all services. In her opinion, it is a "win-win situation for getting women on WIC, Medicaid, and prenatal care." The registered nurse thinks that an important element of Steps Ahead home visits is early intervention, particularly detecting a problem before it develops into a more serious medical condition.

Moreover, exit surveys that clients fill out after their postpartum appointment are forwarded to the main office, and these results have been overwhelmingly positive.

Key Challenges. The biggest challenge cited by program staff was patient compliance—having women come in for all scheduled appointments. About 10 percent of clients miss their appointments and do not make an effort to reschedule. Staff spend a lot of time trying to track them down, although coordination with WIC helps. Transportation is the main reason that clients have difficulties meeting their scheduled appointment. As long as clients keep their appointments, program staff have the necessary resources to meet their maternity care needs. They also see the coordination between WIC and Steps Ahead as proceeding smoothly.

Lessons Learned. Staff felt that co-location has been a key factor to successful coordination between WIC and the AMMCP, especially in Alabama's system of using private contractors to provide care coordination. They believe Cullman County is the only county in Alabama that integrates WIC with Medicaid maternity care coordination. In this case, the programs are operated through the same agency, and their proximity (and some cross-training of staff) allowed them to develop methods and strategies for working together to serve clients better. Having adequate staff and a strong commitment to the collaboration by staff of both programs was also important.

Both Steps Ahead and the program in Michigan suggest that, when institutionally appropriate, including WIC services as part of home visits for high-risk mothers on Medicaid makes the visits more welcome to the mothers. In addition, coordination of assessments and follow-up visits increases participation in needed services and reduces burden on high-risk families.

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WIC SERVICES IN WORKPLACES¹⁴
EASTERN BAND OF CHEROKEE INDIANS, NORTH CAROLINA

OVERVIEW

Location: Eastern Band of Cherokee Indians reservation in North Carolina.

Start Date: Before 1991.

Target Population: WIC participants who are members of the Eastern Band of Cherokee Indians and work on the reservation.

Purpose: To improve access to WIC by bringing services to clients' places of employment.

Services: Receipt of food vouchers, assistance with completing WIC applications, follow-up nutrition contacts, and referrals.

Funding: No additional funding for this initiative.

Why Program Was Chosen: WIC staff provide certain services to clients at their places of employment, improving access in a rural area. WIC staff make arrangements with employers to offer services during employee breaks or lunch hours. This idea may be of interest to other agencies in rural areas or areas with large employers who employ many WIC clients.

Key Challenges: Initially, clients often did not show up for appointments. Staff lost valuable time that they could have spent with other clients, and they had to reprint pre-dated food vouchers that were not claimed. Telephone reminders have reduced this problem.

¹⁴ Telephone interview, April 15, 2003.

BACKGROUND

Community Characteristics. The Eastern Band of Cherokee Indians (EBCI) covers 88.5 square miles in five rural counties in western North Carolina; the largest tribal land holdings are in Jackson and Swain Counties. The population of the EBCI is 13,033, of whom 7,476 live on tribal lands. Tourism is a primary industry in the region, since the reservation borders the Great Smokey Mountains National Park. The WIC manager estimated that Indian craft stores and motels make up 80 percent of businesses on tribal lands, although they do not employ the most residents. The Tribe, Tribal Enterprises,¹⁵ and the casino hotel are the largest employers and provide year-round employment—with 930, 500, and 1,800 workers, respectively.

WIC Program Background. The EBCI WIC program—staffed by a manager, a full-time nutritionist, a part-time nutritionist, a fiscal grants coordinator/administrator, and two clerical workers—had an average monthly caseload of 562 women, infants, and children in fiscal year 2002 (about 100 cases per staff member, although the project manager and grants coordinator/administrator do not provide direct services unless filling in for an absent employee).¹⁶ In August 2003, there were 124 women enrolled in the WIC program. The WIC agency, which serves the entire EBCI, operates from 7:30 A.M. to 5 P.M. and is co-located in the Indian hospital, which is centrally situated on the reservation. This convenient location enables clients to attend WIC and maternity care appointments on the same day. WIC staff attempt to accommodate clients' schedules by offering a walk-in clinic on Mondays, which offers the same services as during regular business hours. A satellite clinic operates on a monthly basis, but staff there only schedule appointments and process paperwork for clients.

Staff can also make referrals to the hospital's health care clinic. If during an appointment the WIC nutritionist detects that the mother is not getting appropriate health care for her child—particularly during the first year after birth—she makes a well-child appointment at the hospital. The nutritionist can also encourage expectant mothers to schedule their initial prenatal appointment at the health care clinic.

Program History and Objectives. Program officials instituted service delivery in work sites to make it more convenient for WIC clients to receive services, which were available only during typical business hours. At that time, the region faced high unemployment rates and offered few employment opportunities. The primary employers, a craft factory and a textile plant, were fairly strict about allowing their employees to leave in the middle of a shift for a WIC appointment. Because workers received minimum wage and could not afford to take unpaid leave during the regular work day, many of them—about half—opted to skip WIC appointments.

WIC program staff decided to negotiate with the owners of the two factories and a small casino to create an agreement that would help deter employees from forfeiting needed services. As a result, staff could visit the work sites on Wednesday mornings and meet with clients in the

¹⁵ Tribal Enterprises includes the hospital, schools, and the Boys Club.

¹⁶ Caseload is from [www.fns.usda.gov/pd/wifypart.htm], accessed September 24, 2003.

break rooms. Initially, the only service that WIC offered at employment sites was delivering food vouchers to participants.

Target Population. Members of the EBCI who participate in WIC are eligible to receive WIC services in their places of employment if their work sites are located on the reservation. The service delivery area includes Cherokee, Graham, Haywood, Jackson, and Swain Counties in North Carolina. About 45 percent of EBCI WIC mothers work, either full- or part-time. Although the WIC manager has received requests for workplace services from EBCI members who work in the small towns that border the reservation, they do not qualify, because they fall outside the EBCI's jurisdiction.

PROFILE OF INNOVATIVE PROGRAM

Services Provided. A WIC nutritionist and clerk deliver selected services in places of employment. While initially WIC distributed food vouchers for only one or two months at a time, the program expanded services in the mid-1990s. Clients now can obtain three months of food vouchers and receive assistance in filling out a WIC application. The nutritionist can refer clients to the diabetes clinic, the dental clinic, the food stamp program, the Food Distribution Program on Indian Reservations, Head Start, Medicaid, or the Children's Health Insurance Program, as appropriate. While she cannot make well-child appointments on site, she encourages clients to call her at the main office to remind her to schedule an appointment for them. In addition, the nutritionist can conduct follow-up nutrition education contacts with low-risk clients. (These second contacts can include information for children, although children are not present at the work sites.) Examples of low-risk topics include weaning, healthy snacks, folic acid, solid foods, dental care, 5-A-Day, and physical exercise. However, certifications, recertifications, and prenatal nutrition education sessions must still take place at the WIC agency.

The WIC nutritionist and clerk make rounds to various work sites each Wednesday from 9:30 A.M. to 12 noon. Staff do not follow a formal schedule (such as serving the tribal administrative offices on the first Wednesday of each month), but instead schedule clients for the next available and most appropriate date. They also track which clients need food vouchers. This allows WIC staff the flexibility to meet the needs of clients based on their demand for services. Individual sessions generally last 10 to 15 minutes. On any given Wednesday, staff visit one to six workplaces.

Because pre-dated food vouchers are printed ahead of time, clients must make appointments in advance through the main office or a satellite office. The nutritionist can answer quick questions from those who are not on the schedule, but otherwise she directs clients to make an appointment or attend the walk-in clinic on Mondays. Because appointments are frequently made several months in advance, the clerk mails reminder notices in advance and telephones the client the day of the scheduled appointment to remind them of the session and verify that they still work for that employer, and that they are not absent. If the client is not available, then the food vouchers are not printed and the appointment is cancelled or postponed.

WIC has expanded the number of workplaces where it delivers services throughout the 1990s. The textile plant shut down, but employment opportunities in the region have grown over

the past several years, including jobs in the tribal government and in small craft stores that cater to tourists.¹⁷ Employers in the service delivery network include five day care facilities, two restaurants, Cherokee Elementary School, Cherokee High School, several motels, an office supply store, an arts and crafts co-op, seven tribal offices (the health and medical, housekeeping, finance, legal, construction, and extension services divisions, along with the visitor's center), Cablevision, the Bureau of Indian Affairs, the Department of Housing and Urban Development, and a new tribal office complex that houses multiple programs, a library, and a wellness center.

Participation. The proportion of WIC clients who take advantage of service delivery in places of employment is small as compared to overall enrollment. From January 1 to September 10, 2003, WIC staff visited 43 work sites and provided services to 102 WIC participants. Thus, they served about 13 clients a month (and/or their children), out of a caseload of 562.

Coordination and Collaboration. For this initiative to succeed, employers must be willing to allow WIC staff to visit their places of employment to deliver services. The WIC manager reported that most employers are quite flexible with their employees' work schedules to accommodate short appointments during regular business hours and permit employees to meet with WIC staff on site. Workers at a local factory can arrange to meet the nutritionist and clerk in the break room, and tribal government workers can meet with staff at their desks most of the time. If a client interacts frequently with the public (for example, as a sales clerk in a craft store) and is busy when the nutritionist arrives, the nutritionist can either wait for a lull in business or arrange to return to the store later that day. At the local Head Start program, the lead teacher and teacher's assistant take turns meeting with WIC staff outside the classroom.

Publicity and Outreach Efforts. Because the EBCI reservation covers a small geographic area, residents learn about the WIC program and its service delivery in work sites entirely through word of mouth. The WIC manager noted that available social services are "known entities" in the community, especially since many families have lived on the reservation for generations. Other organizations will refer clients to the WIC program if they are not participating, but there is no formal referral or marketing process for the work site service delivery option.

ORGANIZATION AND MANAGEMENT

Staff and Organizational Structure. A full-time nutritionist and one of the clerical workers conduct the service visits to the work sites. The WIC manager, who has a bachelor of science degree in nutrition and dietetics, can fill in for the nutritionist if needed. The nutritionist

¹⁷ A larger casino replaced the small one in 1998 and ceased on-site WIC service delivery. The management is quite strict and would not permit employees to alter their break schedules to accommodate WIC appointments. However, the WIC manager does not think that a substantial number of casino employees miss critical services, since many of them earn high enough wages to make them ineligible for WIC. Furthermore, many casino employees work evening hours, which makes it possible for them to come to WIC in the daytime.

handles the low-risk nutrition contacts, makes referrals, and assists with completing WIC applications, while the clerk oversees the distribution of food vouchers.

Funding. No additional funding is required to implement the service delivery at local businesses on the reservation. Rather, staff adjust their labor efforts to alternative locations as opposed to delivering services solely at the traditional clinic sites. The WIC manager predicted that the work site initiative will continue indefinitely as long as there is a demand for the service.

ASSESSMENT AND LESSONS LEARNED

Program Strengths. According to the WIC manager, the biggest success of the initiative is that scheduling sessions in work sites greatly eases burden for clients. They no longer must take time off from work—often unpaid—to complete routine WIC visits, such as submitting program applications, collecting food vouchers, and receiving second nutrition education contacts and referrals.

While the WIC manager has not administered a formal survey to collect feedback, informal comments suggest that clients appreciate the option of service delivery in places of employment and would like to see the alternative system continue.

WIC staff think that the initiative is running smoothly. The only thing that the manager would change if her staff had adequate time and resources would be to assist clients who live and work in small towns that border the reservation and have requested WIC services at their work sites. Most—but not all—of these people are EBCI members, but they work outside the reservation and thus do not qualify. This anecdotal evidence suggests that residents in other rural areas might welcome the opportunity to receive certain WIC services at work.

Key Challenges. The WIC nutritionist and clerk encounter very few ongoing challenges in meeting clients at their places of employment. With the exception of the large casino that opened in 1998, business owners and supervisors have welcomed the on-site services. Initially, staff frequently wasted valuable time by arriving at a site only to discover that the employee was sick or on vacation, or had resigned. Further, it became necessary to reprint pre-dated food vouchers, which the clerk needed to generate in advance of the appointment. As a solution, in 2001, they began to call a day or two in advance to confirm the appointment. Now a clerk calls the morning of the scheduled appointment before printing the food vouchers or visiting the work site.

Lessons Learned. This WIC initiative is potentially replicable, though the extent to which it could be replicated in other regions would depend upon how receptive employers and clients were, the population's size and geographic parameters, and caseload levels.

If a client does not work in an environment conducive to a flexible break schedule—such as an administrative office with minimal public interaction—then WIC staff would need to negotiate with the supervisor to arrange a time period to conduct appointments. Clients would also need to be willing to receive services at work, where their privacy could be compromised (at least in that their employer and coworkers would know they participate in WIC).

Moreover, implementing a comprehensive service delivery system in work sites could be easier in rural areas as opposed to urban centers in some situations, but not in others. In metropolitan areas, a larger volume of clients would require that WIC staff be selective and concentrate on a core group of employers, which may eliminate some clients from this service, depending on where they work. At the same time, not as much travel time would be needed in urban centers, whereas great distances in rural regions could limit the number of work sites visited. The EBCI WIC manager also noted that a sizable portion of clients may work second and third shifts. Determining where clients are employed, and whether they work during regular business hours, would help program officials plan services.

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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			NSA Funds Only
			Operational Adjustment	Infrastructure	State Grant	
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			NSA Funds Only
			Operational Adjustment	Infrastructure	State Grant	
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.

^aFormal survey conducted.

^bPlans 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.

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APPENDIX A

**PROCEDURES FOR SELECTING PROGRAMS
AND COLLECTING DATA**

A. SELECTING PROGRAMS TO STUDY

This appendix describes the steps used in selecting initiatives.

1. Gathering Nominations

First, in December 2002, we sent electronic letters to the directors of the seven FNS regional offices, to all 87 state and tribal WIC directors, and to representatives from the Food Research and Action Center and the National WIC Association seeking their nominations for appropriate programs for the study. We also contacted the California WIC Association and Public Health Foundation Enterprises Management Solutions in California for their input.¹ To encourage cooperation, officials from FNS headquarters notified the regional offices that MPR would be contacting them about the study and urged them to assist.

The letters explained the purpose of the study, our definition of “innovative,” and the five types of programs in which we were particularly interested—breast-feeding promotion, obesity prevention, innovative service delivery, preventive health care, and staff training. (Appendix B contains the text of the letter.) We also invited program officials to bring other types of innovative programs to our attention. Thus, we allowed these officials considerable leeway in defining what they viewed as innovative within the five target areas. Programs were required at least to be partially funded with WIC dollars, but did not have to be solely funded by WIC. Because Special Project Grants and FIT WIC programs were already under study, we requested that officials omit any such programs from their list of nominations.

To effectively use the information from regional offices, state and tribal WIC directors, and other experts to choose 20 to 25 programs for further study, we asked officials to include (1) a description of the service(s) and the target population, (2) the factors that make it a promising or innovative program, (3) the name of the local WIC agency or agencies, and (4) appropriate contact information. We followed up by e-mail with all states that did not respond within two weeks, then followed up with a random sample of about half the remaining programs by telephone.

Table A.1 presents the approximate number of programs nominated from the seven FNS regions (including the state WIC agencies in those regions) and the number of tribal programs nominated. We received nominations from 32 states and three Indian Tribal Organization (ITO) WIC agencies.² We received them directly from state WIC staff, submitted by states through the regional offices, or from regional office staff. Nine states and three ITOs told us or their regional office that they had no programs they wished to nominate. Twelve states and the remaining

¹ The California WIC Association is a large, active local affiliate of the National WIC Association. Public Health Foundation Enterprises Management Solutions is the largest local WIC agency in the United States, covering the Los Angeles area, and is known for sponsoring innovative programs. It was the only local WIC agency contacted for nominations.

² Throughout this report, we include the territories of American Samoa, Puerto Rico, Guam, and Virgin Islands as “states.”

TABLE A.1

GEOGRAPHIC RANGE OF NOMINATED PROGRAMS

FNS Administrative Regions	Number of Programs
Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont	3
Mid-Atlantic: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Puerto Rico, Virginia, Virgin Islands, West Virginia	20
Southeast: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	16
Midwest: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	36
Southwest: Arkansas, Louisiana, New Mexico, Oklahoma, Texas	7
Mountain Plains: Colorado, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming	6
Western: Alaska, American Samoa, Arizona, California, Guam, Hawaii, Idaho, Nevada, Oregon, Washington	14
Tribal Programs	5
Total Programs Nominated	107

ITOs did not respond. In a few cases, we contacted nominated programs by telephone to have brief conversations (15 to 30 minutes) to clarify some points and gather some information. We also called the contacts at several state agencies that had nominated many programs to obtain their impressions as to which of their programs were of the most national interest. We then reviewed lists of innovative programs on the WIC Works Website (compiled by the National WIC Association based on feedback from FNS regional offices). We selected a few programs from these lists (which added one state), after contacting the state agencies to ensure the program was still operating and was appropriate to include.³ Because of resource and schedule constraints, we ended our efforts to obtain nominations in mid-February 2003.

We reviewed about 107 nominations from WIC officials and/or selected from the WIC Works Website.⁴ The number of nominations per state ranged from 1 to 18. The nominations are not necessarily representative, since many states did not respond, and states varied in how they interpreted our request. Some states interpreted “innovative” broadly, while others interpreted it so narrowly they responded they had nothing to suggest. Some clearly saw “innovative” as within the context of their state, while others had a more national perspective.

2. Selecting Programs for Telephone Interviews

After compiling nominations, the research team began the process of selecting 20 to 25 programs to investigate further through telephone interviews with appropriate program contacts. One goal was to include programs that were geographically diverse and covered the range of services of interest—programs that promote breast-feeding, seek to reduce overweight and obesity, coordinate with preventive health care, or use alternative service delivery models or training approaches. We interpreted geographic diversity as programs from a range of states and regions, and from both urban and rural settings. A second goal was to include some programs that targeted high-risk groups. In addition, we sought to include programs that were beyond their start-up phase, so we asked for nominations of programs that had been operating for at least one year. We made a few exceptions to this rule for programs that seemed to have a lot to offer. Similarly, although we had planned to include only programs still in operation, we decided to include two that had ended or were about to end but that had a sufficient history of success to learn from. We dropped some nominations because they were for small interventions, not likely to make much difference in themselves, although many were good ideas.

³ See www.nal.usda.gov/wicworks/sharing_center/statedevrqns.html.

⁴ We say “about” 107 nominations because there was a certain amount of judgment involved in determining what to count. In general, if there was a mention of a program in an e-mail or list but no details about the program, we did not count it. When one regional office sent very detailed lists of activities in the region, we made judgments about which could be considered to be ongoing “programs” for the purposes of the study, and only counted those. In addition, we did not count an intrastate program to prevent fraud that involved several states and ITOs, because it seemed unrelated to the focus of this study and would artificially inflate the number of agencies with nominations considered.

We received many nominations of breast-feeding programs (about half of the total) and relatively few in other areas. One reason for this is that WIC programs have had targeted funding for breast-feeding promotion since the late 1980s, so they have had substantial experience in developing these programs. More recently, WIC programs have received permission to use food funds to purchase breast pumps for breast-feeding clients, which has led to development of breast pump programs in many agencies. On the other hand, other nutrition services funds are limited, and USDA's RQNS initiative is relatively new. Therefore, programs concerning other aspects of nutrition education, including obesity prevention, are not as well developed. The FIT WIC grants—the major USDA initiative concerning WIC and obesity prevention—are out of the scope of this study. Furthermore, WIC agencies are somewhat reluctant to discuss partnerships with other agencies related to other types of preventive health services, for fear they may be given “unfunded mandates”—new service requirements without additional funding to support them.

To reflect the nominations received, breast-feeding support programs were about half of the programs selected, with the rest divided among the other categories of interest (and some programs falling into more than one category). However, all five categories were represented. Because of the abundance of breast-feeding programs, we could be more selective. We decided to focus on well-established, multifaceted programs, as well as on programs that have developed unique ways of reaching hard-to-reach populations, such as teenagers, rural mothers, or mothers of premature infants. We also included programs representing most of the major approaches to breast-feeding services that go above and beyond the core WIC requirements. In the other topic areas, we had few nominations to choose from. To obtain a range of interesting programs, we sometimes needed to bend our other requirements (for example, selecting a dental health program in operation for less than one year). We also sought out programs in the target areas other than breast-feeding on the WIC Works Web site; three of the final selections came from this source.

In March 2003, MPR developed a list of potential programs for study that was somewhat larger than needed, then met with ERS and FNS staff members and obtained their feedback on which programs to drop and whether to add others. After several rounds of discussions, we came up with a list of 22 programs for telephone interviews. We selected more than 20 programs at this stage because we were concerned that some of the programs would not wish to be part of the study or would prove not to be good candidates when we spoke with them further. As it turned out, we completed interviews with all 22 programs, but decided to drop 2 programs because they were having implementation problems.

B. DATA COLLECTION

Because this study is an exploration of innovative practices in the WIC program, as opposed to a test of their effectiveness, we relied primarily on qualitative data. We used two main data sources for this study: telephone interviews and site visits. Gathering descriptive information and perspectives from various stakeholders was an effective way to answer our research questions. For example, interviewing program officials and line staff helped us identify key implementation successes and challenges, as well as lessons for future replication. This section describes the data collection procedures we followed for the study, including discussion guides

for telephone interviews and site visits and procedures for conducting the telephone interviews and site visits. We did not analyze administrative data on any of the programs, nor did we interview clients.

1. Telephone Interviews

To obtain more detailed information on the design and operations of innovative WIC programs, we developed discussion protocols for conducting the telephone interviews. The protocols were organized according to topics related to the three main research questions. The topics included (1) program goals and development, (2) services provided, (3) organizational structure, (4) outreach, (5) clients' perspectives, (6) funding, (7) implementation successes and challenges, (8) evaluation efforts, (9) lessons learned, and (10) likelihood for replication. The questions were tailored based on the type of program. For example, some specific questions asked of a local director operating a home visitation program would differ from those asked of a local breast-feeding coordinator overseeing a peer counseling program. Project members reviewed the protocols, tested them with several telephone interviews, discussed how effective they were in collecting the needed information, and made minor modifications. Table B.1 in Appendix B presents the protocol template that was used for the interviews. We adjusted, added, or eliminated questions for particular respondents, as appropriate.

After the ERS project officer gave final approval of the 22 programs, we contacted the appropriate regional FNS offices by e-mail to let them know the programs that MPR would be contacting in their jurisdiction. Next, we arranged times for telephone interviews with the appropriate people from the 22 programs (see Table A.2). For state-level programs, we typically spoke with the state WIC director or a specialized official, such as a state nutrition education coordinator. For local programs, we spoke with individuals such as local agency directors and local breast-feeding coordinators. In a few cases, state officials were respondents for local programs that covered several local agencies. For one statewide program, we spoke with a state official and a breast-feeding coordinator from one of the local programs. Interviews lasted between 1 and 1.5 hours and were conducted by a single member of the research team. Sometimes, more than one official involved in the program participated in the interview.

We began the conversation by explaining the purpose of the study, then proceeded through the protocol topics as described earlier. At the same time, many respondents provided information on a range of questions before they were asked, and we adjusted the flow of the discussion accordingly. In general, we covered most topics. At the end of the interviews, we asked respondents if they would welcome a site visit from MPR to examine their programs more in depth and if they would agree to have their contact information included in the final report. Everyone agreed to both requests. Table A.2 lists the selected programs and whether the officials with whom we spoke were at the state or local level, for the 20 programs that remained in the study. All interviews took place in April or May 2003. The interviewers prepared write-ups of each interview, arranging the information from their interview notes into answers to the questions in the protocol.

TABLE A.2

CHARACTERISTICS OF PROGRAMS CHOSEN FOR TELEPHONE INTERVIEWS

Program Name	State	Telephone Interview Respondent(s)		Program Area
		State-level	Local-level	
Steps Ahead/WIC Coordination—Cullman County	AL		✓	Service Delivery
WIC Nutrition Education Model for Prevention of Early Childhood Caries	AL	✓		Preventive Health
Breast Pumps for Mothers of Premature and Seriously Ill Infants	AR	✓		Breast-feeding
Cease Alcohol Related Exposure (CARE)	CA		✓	Preventive Health
Expanded Breast-Feeding Peer Counselor Program	CA		✓	Breast-feeding
Loving Support Breast-Feeding Helpline—Riverside County	CA		✓	Breast-feeding
Lactation Consultant Services—Sacramento County	CA		✓	Breast-feeding
WIC RD: Adjunct to Pediatric Health Care	CA	✓		Infant feeding/Training
Breast-Feeding Promotion and Support Program—Miami-Dade County	FL		✓	Breast-feeding
Moove to Lowfat or Fat Free Milk Campaign	FL	✓		Obesity Prevention
Pumps in the Schools (PITS)	HI	✓		Breast-feeding
Coordination of WIC with Maternal and Infant Support Services	MI	✓		Service Delivery
The Learn Together Approach	MI	✓		Training
WIC Services in the Workplace—Eastern Band of Cherokee Indians	NC		✓	Service Delivery
Infant Feeding Classes for Pregnant Teens	OH		✓	Breast-feeding
Get Fit With WIC	OK	✓		Obesity Prevention
Obesity Prevention Modules	PA	✓		Obesity Prevention/Training
Telephone Peer Counseling by Volunteers	PA		✓	Breast-feeding
Breast-Feeding Peer Counselor Program	TX	✓	✓	Breast-feeding
Bilingual Training Program	WI	✓		Training

2. Site Visits

The team reviewed the interview write-ups—along with written materials provided by several programs—to determine which WIC initiatives would be most appropriate for a site visit. We used several criteria to select the five programs. First, we sought to visit programs that represent a diversity of geographic regions, urbanicity, and types of interventions. For example, we did not want to include four breast-feeding programs and only one program of another type. We also decided not to visit more than one program in a state. Moreover, we decided to select initiatives that were ongoing, that were complex enough for us to substantially add to our knowledge by going on-site, and that had good potential for being replicable. We discussed our selections with ERS and FNS staff, and they approved our final five selections.

In June 2003, we contacted the sites to notify them of their selection. All program staff were pleased and enthusiastic to have been chosen for on-site study. The lead site visitor collaborated with a key program contact—in each case, a person who participated in the telephone interview—to identify appropriate individuals to interview and program services to observe. The site visitor developed an agenda for the visit in collaboration with the key program contact. Table A.3 presents an example of an agenda.

In preparation for the site visits, we developed customized protocols for the five programs, which were based on the telephone interview protocol presented in Appendix B. Again, this was to ensure consistent data collection during the visit. Although the topics covered were similar to those discussed during the telephone calls, issues were covered in much greater detail and from a range of perspectives. Protocols included interview questions for specific program staff members, as well as an observation sheet on which to systematically record observations of program activities (see Appendix B for a sample observation sheet). Interview respondents varied according to the specific program, but included such individuals as (1) the local agency WIC director, (2) any key program managers (if different from the local agency WIC director and if different from telephone interview participants), (3) the local breast-feeding coordinator (if a breast-feeding program), (4) WIC nutritionists and/or nurses, (5) peer counselors, (6) other relevant staff in the WIC clinics who are involved in delivering innovative services, and (7) staff at associated health programs who interacted with WIC staff. We tried to speak with as many people as possible while on-site.

One person took the lead on drafting the protocols for each program, then circulated the documents to other team members for comments, making adjustments as needed. As with the telephone interviews, we adjusted, added, or eliminated some questions for particular respondents once on-site, when that was appropriate. To improve the quality of the site visit data, we conducted two of the five site visits in teams of two, and we drafted our notes as soon as possible after returning from the visits. Thus, we could follow up quickly with the local program staff if there were gaps in the information gathered. Further, traveling in teams, when possible, allowed for firsthand accounts of program operations from two perspectives. Upon return, we reviewed each other's notes to ensure data consistency.

TABLE A.3

SAMPLE SCHEDULE FOR SITE VISIT

WIC NUTRITION EDUCATION MODEL FOR THE PREVENTION
OF EARLY CHILDHOOD CARIES
BIRMINGHAM, ALABAMA, AND VICINITY
JUNE 25-26, 2003

Time	Activity
Wednesday, June 25	
4:30-5:30	Interview with Professor and Chairman, Department of Pediatric Dentistry at the University of Alabama at Birmingham
Thursday, June 26	
8:00-8:15	Arrive and meet staff at the Calhoun County Health Department
8:15-8:30	Observe dental nutrition education class at Calhoun County Health Department
8:30-9:15	Interview with WIC nutritionist who taught dental nutrition education class
9:30-10:00	Arrive and meet staff at the Anniston Head Start Center; tour center
10:00-10:15	Observe dental nutrition education class at the Head Start Center
10:30-11:30	Interview with WIC nutrition area coordinator who taught Head Start class
LUNCH	
12:30-1:30	Travel to the Jefferson County Department of Health, tour facilities
1:45-2:00	Observe individual dental nutrition education contact at the Central Health Center
2:00-2:45	Interview with WIC nutritionist who taught dental nutrition education class
2:45-3:45	Group interview with four WIC nutrition area coordinators
3:45-4:30	Interview with Assistant Professor, Department of Health Behavior at the University of Alabama at Birmingham

We conducted the five site visits from June through September 2003. Most visits were 1.5 to 2 days long, although one visit was completed in one afternoon and the following morning. All visits involved interviews with program staff and community partners (if relevant) and observations of services and/or training activities. Table A.4 presents the five programs visited, the dates of the visits, and whether they were conducted by one or two team members.

TABLE A.4
CHARACTERISTICS OF WIC SITE VISITS

Program	State	Dates of Site Visit
WIC Nutrition Education Model for the Prevention of Early Childhood Caries ^a	AL	June 25-26, 2003
Home Visiting for WIC Certification and Counseling ^a	MI	August 6-7, 2003
Loving Support Breast-Feeding Helpline ^b	CA	August 12-13, 2003
Statewide Peer Counseling Program ^b	TX	September 16-17, 2003
Get Fit With WIC ^a	OK	September 22-23, 2003

^aOne site visitor.

^bTwo site visitors.

3. Final Review

We asked all key contacts from the telephone interviews and site visits to examine the first draft of the profiles of their programs. After drafting the profiles, we sent electronic copies to our contacts and asked them to review the documents to determine if we recorded details about the program accurately and to provide any missing information needed to make the profile complete. All of our program contacts provided comments and corrections, if necessary.

APPENDIX B
PROTOCOLS

LETTER SENT TO STATE WIC DIRECTORS AND FNS REGIONAL OFFICES

Hello!

We at Mathematica Policy Research, a national research firm, are asking for your help. The USDA Economic Research Service (ERS) recently awarded us a contract to describe the range of innovative programs currently in place at WIC agencies. While research has shown that WIC is effective, there is not much information available about the promising and innovative practices that clinics are using. We would like your assistance in identifying promising programs in your jurisdiction. We will also be contacting [FNS regional offices/state WIC agencies], the National WIC Association, and other experts.

What do we mean by an “innovative” program? We are trying to identify programs or practices that are different from what WIC usually does. Preferably, the program will be something that has been up and running for at least a year, and has shown evidence of its effectiveness. The program should also have potential for being replicated in other places. We are particularly interested in the following types of programs: (1) promotion of breast feeding and support of healthy infant feeding practices, for example, through programs such as peer counselors and lactation consultants; (2) prevention of overweight and obesity; (3) innovative service delivery approaches, such as home visits; (4) practices that increase well-child health care and immunizations; and (5) special training programs for WIC staff. If there are other innovative programs that you would like to bring to our attention, please do so. We are interested in programs that are at least partially funded by WIC, but they do not have to be solely funded by WIC. Because they are already under study, please do not include information about any Special Project Grants or FIT WIC programs.

Our plan is to use the information you provide us to select about 20 programs for further study, and 5 among these for site visits. In order to do that, please provide us with the following information for each innovative program or practice that you wish to nominate:

- a description of the service(s) and the target population
- why you feel it is a promising or innovative program
- the name of the local WIC agency or agencies, if applicable, and contact person information; if it is a state or regional program, also include the appropriate contact person information

Kindly return your feedback to any of the names listed below by January 3. Feel free to e-mail, mail, or fax the information. Thank you in advance for your time. We know your time is very valuable and appreciate your attention to our request. If you would like to designate another person in your office to respond to our request and serve as liaison for this study, please feel free to do so. Otherwise we may be contacting you in early January to follow-up or request more information. If you have any questions, please do not hesitate to contact any of the staff for this study.

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With much enthusiasm,
Anne Gordon, Tania Tasse, and Teresa Zavitsky

**INNOVATIVE WIC PRACTICES
TELEPHONE INTERVIEW PROTOCOL**

SPRING 2003

INTRODUCTION

*Hello, my name is [INTERVIEWER] and I am calling from Mathematica Policy Research. We are conducting a study on innovative WIC practices for the Economic Research Service of the U.S. Department of Agriculture. This study will describe a range of WIC programs and collect information on current innovative practices and lessons learned to help policy makers and program staff think about ways to improve the WIC program. At this phase of our work, we are collecting detailed information on approximately 20 programs across the country for possible inclusion in our report; we will select 5 programs from this group for more in-depth study. We received your name from *** with the ***, who thought that your program, [INITIATIVE], deserves to be studied further because it is innovative. When Mathematica invited nominations, we defined “innovative” as something that is different from what WIC usually does, and we were particularly interested in programs that include services in one of the following areas: (1) the promotion of breastfeeding, (2) prevention of overweight and obesity, (3) innovative service delivery approaches, such as home visits, and (4) coordination with preventative health care, such as dental health screening or lead screening. While we have a bit of information on [INITIATIVE], I would like to schedule a time to talk to you—or someone else from your agency if you think they would be more appropriate—to learn more about it. This conversation should take about an hour. Would you be interested in participating in this study for USDA, and if so, can we set up a time for me to call you back?*

CONTACT INFORMATION

Name and title:

Program name:

Address:

Phone number:

E-mail:

Date of Interview:

Interviewer:

WIC INITIATIVE

A. Program Goals and Design of the WIC Initiative

1. How long has [INITIATIVE] been operating? Is it intended to be a pilot for a specific period, or to continue indefinitely depending on funding sources?
2. What prompted [INITIATIVE] to get started, and what are the main goals? What problems/issues is the program trying to address? Who were the main actors?
3. How did the initiative develop...which stakeholders participated during the planning phase, and what steps were involved in designing the [INITIATIVE]?
4. If this is a collaborative effort or part of a coalition, how did these relationships develop? What is the role of these community partners in [INITIATIVE]?
5. Did any challenges emerge during the design phase of [INITIATIVE]?
6. Do you know of other local initiatives in place to [*choose one*: improve coordination between the WIC agencies and health care agencies, or to deliver services through home visits/reduce obesity or improve dietary intake/improve breastfeeding rates]?

B. Services Provided

1. Before [INITIATIVE] started, what did the overall service environment look like with regards to [*choose one*: improve coordination between the WIC agencies and health care agencies, or to deliver services through home visits/reduce obesity or improve dietary intake/improve breastfeeding rates]? What services were provided, and to whom? Were there any enhanced services in place, like lead screening? *Essentially, get a sense of what services a WIC client would have had access to before the new initiative.*
2. What is the service area for [INITIATIVE]? (statewide, select counties/MSAs, one local WIC agency)?
3. Who is eligible for the services and to whom is [INITIATIVE] targeted? Is it aimed at current WIC clients or the wider community? Does it target subgroups (e.g. Spanish-speaking families, teen parents)? Is it targeted at health professionals or other service providers?
4. How many total clients (*tailor for type of initiative*... women—pregnant, breastfeeding/non-breastfeeding postpartum women—and children) does [INITIATIVE] serve annually? Are the participation rates what you had expected? Is staff overwhelmed by the interest, or is it a struggle to get people to participate?
5. Who is the 'typical' client?
6. Describe the specific services provided by [INITIATIVE].

7. Where do the services occur? How long are services designed to last, and how frequently do they take place (times per week or month)? What is the duration of each contact? Are services initiated by the program staff or by the client? *If multiple services, may need to ask separately for different services.*
8. What percentage of the targeted group participates, and how long to clients actually participate? *If multiple services, may need to ask separately for different services.*

For breastfeeding initiatives only:

9. Before [INITIATIVE] started, what percentage of your WIC clients chose to breastfeed? What were the duration rates like? Did these rates vary by subgroup (*for example, were teen parents less likely to breastfeed?*) How did these rates compare to the state average?

For coordination with health agencies and/or home visiting initiatives only:

10. To what extent is [INITIATIVE] linked to other local social service agencies—are service efforts coordinated? What services do these groups provide?
11. Does WIC provide services to health/medical center clients, and do health/medical centers provide services to WIC clients? How are these agencies linked to the WIC initiative?
Through...

- Co-location?
- Referrals?
- Shared staff?
- Information sharing (e.g. clients' records)?
- Joint training?
- Common nutritional protocol?
- Coordinated screening?
- Joint enrollment?
- Cooperative follow-up with clients?

For all initiatives:

12. In your opinion, what sets [INITIATIVE] apart from what other states/counties are doing?

C. Staff and Organizational Structure

1. What is the management structure of [INITIATIVE]? Who are the key staff, and what are their roles and responsibilities?
2. Are any staff employed by other agencies/partners?
3. Are there specific qualifications required for staff who work on the initiative? Do they need to have specific degrees or certifications?

4. Were staff for the initiative considered to be ‘new hires,’ or had they already been working for the agency?
5. Describe any training activities for {INITIATIVE}.
 - Who developed the training activities?
 - Who delivered the training?
 - How many and which types of staff participated?
 - When did the training occur?
 - How often is training repeated, if at all?
 - What are the strengths and weaknesses of this training?
6. Are there formal written procedures (e.g. protocol manual) and training materials in place (*so that other staff could easily come in and take over*)?
7. Are volunteers involved in the initiative? If so, what is their role? Who supervises them, and have they received any special training?

D. Outreach and Publicity Efforts

1. How are clients informed about the initiative?
2. How is the initiative publicized?
 - Did staff develop brochures, posters, public service announcements, and/or newspaper articles?
 - What were the main messages?
 - How widely distributed were these publicity efforts?
3. Are other community groups/local partners involved in outreach? Do other providers or agencies provide referrals to the initiative? If so, which ones, and how are referrals made?

E. Client Reactions

1. How receptive were clients to [INITIATIVE]?
2. What comments did they make about the services? What aspects of the program do WIC clients like the most? The least? What are you basing these impressions on—a survey, talking to staff, talking to clients?

3. Do you have any sense of how [INITIATIVE] affects the atmosphere in the clinic and clients' behavior?

F. Funding Levels/Budget

1. What are the funding sources, including dollar amounts (WIC funding, and outside grants)?
Confirm that it is not a Fit WIC program and has not received a Special Project Grant.
2. What are the general cost categories associated with [INITIATIVE] (labor, outreach materials, training materials, 'incentives' for clients, etc.)? How much staff time is spent on the initiative?
3. Are the WIC dollars food funds, NSA funding, state matching funds for WIC, or some combination?
4. If the program is funded with other grants, how did you get the grants and who was responsible for the grant application?
5. Did any grants come from community partners?
6. How stable is future funding for [INITIATIVE]? How long do you intend the initiative to continue?

G. Challenges and Successes

1. What have been the major challenges to implementing [INITIATIVE]? How were those challenges overcome (if at all)?
2. What do you consider to be the biggest success(es) of [INITIATIVE] so far? What factor(s) led to that success?
3. How would you assess the overall quality of the services provided and how well the program is being implemented?
4. If you could make any change to [INITIATIVE], what would it be and why?

H. Evaluation/Monitoring of Outcomes

1. What are the desired outcomes for [INITIATIVE]?
2. Do you monitor the outcomes of the initiative (e.g. collecting data on increased use of health screenings, etc.)? How are the outcomes measured?
3. What have been the results of [INITIATIVE]? *If breastfeeding initiative, see alternate question below:*

For breastfeeding initiatives only:

3b. What percentage of your WIC clients choose to breastfeed?

-- What are the duration rates like?

-- Have these figures changed significantly since the initiative started?

-- Do these rates vary by subgroup (*for example, are teen parents less likely to breastfeed?*)

4. *Do not ask if we know this already.* Has your agency conducted a formal evaluation of the program? If so, when was it conducted and by whom? *Request a copy of the report.*

5. *If the evaluation is ongoing...* What is the status of the evaluation?

I. Replicability

1.

1. Do you think this model can be successfully replicated in other places? Do you think that the program could be used in a range of WIC settings? Why or why not?

2. What advice would you give to an agency that wants to implement a similar WIC initiative?

BACKGROUND INFORMATION (if time)

J. Community Context

1. Describe the area in general—locale, demographics, local economy, urban versus rural.

K. Local WIC Program and Policies

1. Describe the local WIC agency. What entity serves as the local agency (county health department, hospital, nonprofit)? *If state-level initiative, see alternate question below:*

For state-level initiatives only:

1b. Describe the participating WIC agencies. What entities serve as the local agencies (county health departments, hospitals, nonprofits)?

2. How many clinics are attached to this local agency(ies)? Where are the clinics located (e.g. hospital, nonprofit)?

3. How big is the staff at each location? How many numbers served (breakdown of numbers served into pregnant women, breastfeeding women, non-breastfeeding postpartum women, children under 5).

4. Describe the certification process, including nutrition education provided, and how nutrition education contacts are usually provided post-certification. *For breastfeeding programs:* What about specifically for breastfeeding women?

WRAP UP/NEXT STEPS

1. Is there anything that you would like to add about [INITIATIVE] or the WIC population in your community that we have not discussed?

If we include this profile in the report, we would like to give an overall description—can we include your contact information in the report (or someone else who would be more appropriate?)

Based on what you know about our study, do you think that this program would be a good candidate for a two-day site visit? The visit would take place sometime this summer by two members of the research team. We would like to interview stakeholders and participants, observe program services (e.g. a peer counseling session), tour a local WIC agency, and collect cost information. Information on topics that we covered today would be repeated during the site visit, but collected from a variety of perspectives, including the local WIC agency director, director of the innovative program (if different from local director), staff members in the WIC office, especially those delivering services, and finally the participants receiving services.

**INNOVATIVE WIC PRACTICES
XXX SITE VISIT
AUGUST 2003**

OBSERVATION

LOCATION: _____
DATE, TIME: _____

Location of observation (e.g. waiting room, classroom, WIC staff office, hospital, clinic)

Description of participants

WIC/Hospital/Clinic clients (e.g. number, race, sex, approximate age)

Staff (e.g. number, title)

Environment (e.g. distractions, cleanliness, comfort, engaging pictures/posters/bulletin boards)

Is Loving Support Breastfeeding Program theme/logo evident? If so, how? (e.g. posters, staff lanyards)

Description of activity taking place (e.g. class, counseling)

Language (e.g. English, Spanish)

Topic of activity

Intervention tools utilized and/or incentives distributed (e.g. slide show, handouts, food)

If applicable, style of class (e.g. lecture, facilitated discussion, activity based, food demonstration, combination)

If applicable, role of staff in activity

If applicable, role of caregiver or other adult in activity

If applicable, role of infant or child in activity

If applicable, duration of activity