tongue examination for the diagnosis of porcine cysticercosis in Peru. *Am J Trop Med Hyg.* 1990;43:194–199.
2. Sarti E, et al. Prevalence and risk factors for *Taenia solium* taeniasis and cysticercosis in humans and pigs in a village in Morelos, Mexico. *Am J Trop Med Hyg.* 1992;46:677–685.
3. Schantz PM, Sarti E. Diagnostic methods and epidemiological surveillance of *Taenia solium* infection. *Acta Leiden.* 1989;57:153–163.

♦♦♦

De Madres a Madres: A Community Partnership to Increase Access to Prenatal Care[1]

RACHEL RODRÍGUEZ,[2] JUDITH MCFARLANE,[3] JOAN MAHON,[2] & JOHN FEHIR[4]

INTRODUCTION

Early and regular prenatal care is essential for optimum health of both mother and infant and can dramatically lower the rate of maternal mortality. However, access to prenatal care is directly linked to economic status: poor women are less likely to receive such care—both in developing countries and in the United States of America (*1*).

In Houston, Texas, the fourth largest city in the United States, many women in the sizable Hispanic population receive no prenatal care at all. Barriers to obtaining care include lack of transportation to a clinic, inadequate insurance, personal fears, stress, and ambivalence surrounding the pregnancy. Many Hispanic women face additional barriers such as undocumented immigration status, ineligibility for financial assistance, and inability to speak English.

To decrease barriers and increase access to prenatal care in one Hispanic neighborhood, a program called *de Madres a Madres* ("from mothers to mothers") was initiated in 1989. The area in which it operates, Houston's Northside community, is an inner-city neighborhood with high-density housing. Median family income is US$ 12 782. All the women of childbearing age, who make up 34% of the community's population of 13 555, are considered to be "at-risk" for not receiving early prenatal care.

De Madres a Madres is a community coalition effort that includes a group of volunteer mothers working in partnership with community services, including schools, businesses, churches, health and social service agencies, and the media. The coalition seeks to increase community awareness about the importance of

[1]This report will also be published in Spanish in the *Boletín de la Oficina Sanitaria Panamerica,* Vol. 116, No. 1, 1993.

[2]Texas Woman's University, College of Nursing, Houston, Texas 77030-2897, USA; Clinical Nurse Associate, *de Madres a Madres.*

[3]Texas Woman's University, College of Nursing; Director, *de Madres a Madres.*

[4]Texas Woman's University, College of Nursing; Program Evaluator, *de Madres a Madres.*

early prenatal care. The volunteer mothers, who live and work in the community, reach out to pregnant women, providing them with information and support and thereby assisting them in beginning and continuing prenatal care. In addition to the volunteers, the effort is staffed by one mother who directs the program center, two mothers who coordinate volunteer development and outreach efforts, two community health nurses, one part-time program director, and a part-time program evaluator. The program's development, outreach strategies, and evaluation criteria are summarized below.

PROGRAM DEVELOPMENT

To initiate the coalition-building process, it was important to understand the neighborhood. For this purpose, a community health nurse, funded by a grant from the March of Dimes, completed a community assessment using the "community-as-client model" (2). The model can be visualized as a wheel, the core of which is the people, together with their values, beliefs, and religion. Surrounding this core are eight subsystems: the physical environment, education, safety and transportation, politics and government, health and social services, communications, economics, and recreation.

The core and each subsystem were assessed in two ways. First, census data and health statistics (such as birth rates, maternal and neonatal death rates, and birthweight by ethnicity) obtained from government and private sources were analyzed. Second, community leaders from each subsystem, identified by the community health nurse, were interviewed. A total of 31 community leaders were asked for their viewpoint on the proposed program and their perspectives on maternal and infant health in the neighborhood. Most leaders were visited individually several times to enlist support and build trust. Names of potential volunteer mothers were requested, and the community health nurse contacted these neighborhood women to invite them to participate.

At the same time, the community health nurse made formal presentations about the program at scheduled community functions, such as school meetings, civic association gatherings, church functions, and crime-prevention meetings. Informal presentations were made at health fairs, the local grocery store, and school- and church-sponsored events. Community awareness grew as the community health nurse became more involved in local activities and interacted with women interested in becoming volunteers (3).

Assessing the community and gaining its trust were the longest phases of coalition development. However, by the end of 2 years, *de Madres a Madres* had become an active community organization. In early 1991, the program received funding for further development from the W. K. Kellogg Foundation, and began to focus on strategies for the identification and follow-up of pregnant women.

Training of Volunteers

The volunteers are asked to attend a structured orientation, which enhances their confidence level and helps them understand the mission and goals of the project so that they can be more effective spokespersons. Annex 1 outlines the basic curriculum of the orientation sessions and includes the program's mission statement. The mission statement is used to set priorities and make decisions about opportunities for collaboration with other agencies.

Once a volunteer has been oriented, she may become involved in a variety of activities. Levels of volunteerism, which show a progression of responsibility and opportunities, were defined (Annex 2).

As a volunteer develops her leadership skills, she may take on more challenging roles, such as representing the organization at national meetings, providing testimony at public hearings, and serving on the Board of Trustees. (Currently, 50% of the members of the *de Madres a Madres* board are volunteer mothers; two of the mothers are board officers.)

OUTREACH

Outreach is the most important job of the volunteer mother. Reaching pregnant women during their normal daily routine is key to the success of the program. To accomplish this, information booths are set up regularly at the local grocery store so women can find out how to obtain prenatal care without having to make a series of phone calls or special trips. The church pantry, which dispenses food to needy families, is another place to reach pregnant women. As women wait in line to receive food, a volunteer mother provides them with information about resources available to them during pregnancy. Since women come to the pantry every 2 weeks, tracking and follow-up is facilitated.

Schools are another outreach point. Volunteers work in the middle schools and high schools, where a booth is set up weekly to provide information and support to pregnant teenagers. At elementary schools, volunteers come into contact with other mothers who are bringing their children to school. These informal contacts are an excellent way to share program information.

Pregnant women who would like more information or assistance from the program are matched with volunteer mothers who are able to provide intensive, one-on-one contact in the form of phone calls or visits to the woman's home. The volunteer mother becomes an important means of social support and a confidant.

Another aspect of the outreach component is the *de Madres a Madres* center, located within walking distance of most of the target population. The center, funded in 1991 for 3 years by the W. K. Kellogg Foundation, is open during the week for drop-in visits and social support. Since the center is actually a house and not an office *per se*, the atmosphere is warm, inviting, and comfortable. Children are always welcome and toys are available to keep them entertained while their mothers talk to staff or enjoy a cup of coffee.

The center is also used as a meeting place for the volunteer mothers. They meet once a month to plan their activities and enjoy social time together. Special programs with invited guest speakers are also held there. Volunteer mothers regularly work at the center answering telephones, helping with paperwork, and providing information to women as necessary.

EVALUATION

Since *de Madres a Madres* was initiated to decrease barriers and increase access to prenatal care, the major evaluation criteria of the program are the degrees to which these goals have been accomplished. Feedback is obtained by asking virtually everyone involved in the program—from staff at the center to volunteer mothers to pregnant women in the community—"How is the program going?" and "How could the program be improved?" A qualitative evaluation method such as this one does not require the use of questionnaires and is accessible to and usable by the volunteers themselves. These two general questions allow for a collaborative evaluation between the community and the program, which provides information necessary to make appropriate choices (4), yields information on why the program is succeeding

or failing (*5*), and reveals the program's utility in the community, i.e., how adequate, appropriate, effective, and efficient it is (*6*).

Because of their commitment to initiating or funding similar programs in the future, the W. K. Kellogg Foundation was justifiably interested in a more structured evaluation that sought to answer such questions as, "What changes occurred during the course of the program?" and "Were basic trends altered?" Thus, the following quantifiable measures were tracked: number of at-risk mothers contacted; points in their pregnancy (weeks of gestation) at which they had contact with the center's volunteers; number of volunteer visits to at-risk mothers; general health of at-risk mothers during pregnancy; general health of mothers and their babies for several months after delivery; birth weights; and estimates of the costs of pre- and postnatal health care.

The ongoing evaluation of the *de Madres a Madres* program offers solutions to problems because it is collaborative in design as well as qualitative and quantitative in its methods.

CONCLUSION

De Madres a Madres is special because it was developed by and for the people of the community it serves. The volunteer mothers and the community have assumed ownership of the program and are committed to its success. To date, 50 volunteer mothers have been trained, and many other people—both in and out of the community—have expressed support for the mission of the program: promoting the health of women and children in Houston's Hispanic community.

Acknowledgments. The authors, all of whom are directly involved in *de Madres a Madres*, wish to thank the volunteer mothers of Houston's Hispanic Northside community, as well as all the unsung heroes who have contributed time and energy to the program. *Las Madrinas* ("the Godmothers"—a guild of people who offer financial support) are gratefully acknowledged. Also, the Texas Woman's University College of Nursing and W. K. Kellogg Foundation are acknowledged for their support and commitment to healthy communities.

REFERENCES

1. World Health Organization. Availability of health care. *World Health Stat Q.* 1989; 42(4):235–243.
2. Anderson E, McFarlane J. *Community as client.* Philadelphia: JB Lippincott; 1988.
3. Mahon J, McFarlane J, Golden K. De Madres a Madres: a community partnership for health. *Public Health Nurs.* 1991;8(1):15–19.
4. Archer SE, Kelly CD, Bisch SA. Evaluation processes and tools. In: *Implementing change in communities—a collaborative process.* St Louis: CV Mosby; 1984:88–117.
5. Sandelowski M. Telling stories: narrative approaches in qualitative research. *Image J Nurs Sch.* 1991;23:161–166.
6. Dignan MB. Program evaluation and designing program evaluation. In: *Measurement and evaluation of health education.* Springfield, Illinois: Charles C Thomas; 1986:74–99.

ANNEX 1. Curriculum for *de Madres a Madres* volunteer orientation.

A. Role as advocate
   1. Overview of the program
   2. Importance of volunteer neighborhood mothers
   3. Role of volunteers in the home and the community

B. Resources in the community: health, food, job training, education, financial aid, transportation, housing

C. Communication/support techniques
   1. Development of trust; use of empathy; verbal skills relating to trust and empathy
   2. Nonverbal skills relating to trust and empathy; use of touch

D. Effective supportive communication skills: techniques; barriers to communication; ways of facilitating communication

E. Aspects of quality prenatal care
   1. Places to receive prenatal care; probable cost; what the care entails; outcome of good prenatal care
   2. Maternal complications from lack of prenatal care
   3. Ambivalence about pregnancy and fears of prenatal care

F. Health resources (detailed description)
   1. Agencies offering prenatal care
   2. Eligibility requirements
   3. How agencies coordinate care

G. Low-birthweight infants: prevention and known causes
   1. Prenatal care
   2. Nutrition
   3. Substance abuse
   4. Stress (battering)

H. Family dynamics, interpersonal relationships
   1. Supportive family relationships
   2. Spousal abuse

I. Importance of social support; effects of stress on pregnancy
   1. Ways to decrease stress and increase problem-solving skills
   2. Effective listening; decreasing isolation; guiding others to proper resources; role modeling
   3. Increasing the mothers' self-worth

Mission Statement: *De Madres a Madres* is an organization of volunteers promoting mother-to-mother support for at-risk pregnant Hispanic women through caring, sharing information, and developing a safety network for a healthier community.

ANNEX 2. Levels of volunteerism and training.

Level 1: Informal talks, use of brochures, explanation of program to neighborhood women (e.g., at grocery store, bakery, restaurants, laundromats, beauty shop, church, etc.).

Training:	Informal[1]
Documentation:	Number of brochures distributed equals number of contacts
Follow-up:	Monthly contact with staff member, who prepares written report

Level 2: Presentations to community groups (at churches, schools, booths). Work with the media and community leaders and organizations.

Training:	Formal[2]
Documentation:	Number of people attending presentations, booths; circulation or audience reached by media
Follow-up:	Twice monthly contact with staff member, who prepares written report

Level 3: Level 2 activities plus home visits/follow-up with a caseload of not more than five women. Tracking of intake questionnaires; accompanying women to appointments; writing notes on home visits.

Training:	Formal[2]
Documentation:	Intake questionnaires; notes on home visits
Follow-up:	Weekly staff contact; written report by staff

Level 4: Level 3 activities plus leader/mentor for a group of volunteers (not more than five). Conduct orientation/training of volunteers. Represent *de Madres a Madres* at local, state, national, and international meetings.

Training:	Advanced[3]
Documentation:	Maintain a file on each volunteer. Contact each volunteer weekly and document contacts
Follow-up:	Weekly staff contact; written report by staff

[1]Working one-on-one with a staff member or level 4 volunteer, who provides basic information on the program mission and objectives and community resources.

[2]Completion of four 2-hour sessions covering the *de Madres a Madres* curriculum.

[3]Completion of 4–6 hours training on leadership skills, working with volunteers, and information/time management.