Title: MATERNAL CARE COORDINATION FOR FARMWORKER WOMEN

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ABSTRACT

Nearly three-fourths of the migrant farmworkers in the U.S. are of Hispanic origin. Frequent travel combined with cultural and social barriers make coordination of care a significant concern for migrant health centers providing perinatal services to farmworker women. As part of a demonstration project, a migrant-specific maternal care coordination program was developed using bilingual staff, outreach services, lay health advisors, and a tracking system. First trimester entry into prenatal care and number of prenatal visits increased over a five-year period. A decreasing trend in the number of low birth weight infants was noted. Successful tracking methods obtained over 80% outcome data during the project period.

Migrant health centers need to focus recruitment and retention efforts on employing public health oriented bilingual or bi-cultural health professionals. An outreach strategy must be an integral part of a health care delivery system serving migrant farmworkers. Without these key ingredients, services for this hard-to-reach population will not be accessible or acceptable.

INTRODUCTION

Migrant and seasonal farmworkers labor in one of the most hazardous occupations in the nation, endure substandard living conditions, and have limited access to primary health care (Johnston, 1985). Because of cultural barriers and frequent travel, migrant farmworkers are unfamiliar with and lack access to health and social services. Problems with transportation, child care, and the need to work when work is available take precedence over seeking preventive health care. The result is a pattern of incomplete, fragmented care. These are just a few of the contributing factors that place migrant farmworker women at greater risk for poor pregnancy outcomes.

Several studies have documented high infant mortality among migrant farmworker women (Chase et al., 1971; Slesinger & Christensen, 1986). In general, women and children living in rural America have been cited as a population at greater risk of poor health than their metropolitan counterparts. Lack of health insurance, a decreasing supply of physicians, and inadequate access to care are more frequent problems in rural areas (Hughes & Rosenbaum, 1989). Migrant women face these same problems compounded by social and cultural differences.

Approximately 75% of the migrant farm labor force is of Hispanic origin (U.S. Department of Education, 1989). While it is known that early prenatal care is one of the most important factors in assuring positive pregnancy outcomes, Hispanic women enter prenatal care later than other ethnic groups (Singh et al.,

1989). In 1989 the Division of Special Populations Program Development, U.S. Department of Health and Human Services, reported that only 42 percent of migrant farmworker women enrolled for prenatal care in the first trimester (Puente, 1989). Foreign-born persons make fewer preventive health care visits than individuals born in the United States (Ventura, 1985).

Farmworker migration follows three basic streams in the U.S.: western, midwestern, and eastern. The Federal Migrant Health Program funds 105 migrant health centers in locations where large numbers of farmworkers are employed. These centers report serving less than a quarter of the estimated 3 million migrant and seasonal farmworkers in the nation (Migrant Health Program Strategic Work Plan, 1989). Necessary services and resources are often not available to adequately meet the population's need. Institutional barriers, such as the scarcity of bilingual staff or the lack of community outreach programs, further limit access to services for farmworker families.

PROJECT SETTING

To address these issues, the Department of Maternal and Child Health at the University of North Carolina's School of Public Health collaborated with Tri-County Community Health Center in North Carolina to improve perinatal outcomes of migrant farmworker women and the health status of migrant children birth to five years of age.

North Carolina ranks 5th in the United States in numbers of farmworkers. An estimated 80,000 migrant and 417,000 seasonal

farmworkers, including dependents, are employed annually (Garrett & Schulman, 1988). The agricultural season begins in April and ends in November. Tri-County Community Health Center, the largest of four migrant health centers in the state, has about 20,000 farmworkers in its catchment area. The farmworker population is predominately Hispanic and Black American, with small numbers of whites, Haitians, and Native Americans. In the past five years, the Hispanic maternal and child population at this center has nearly doubled. In 1989, 80% of the prenatal clients were Hispanic.

The purpose of the University of North Carolina Migrant Health Project was to develop a comprehensive and continuous system of health care delivery to this population. A bilingual project team was located onsite at the migrant health center to assist staff in designing culturally appropriate strategies for delivering care to mothers and children. The team consisted of a project coordinator (a public health nurse), health educator (also a public health nurse), nutritionist, and social worker (Watkins et al., 1990).

This article describes the part of the project that focused on the development of a system of maternal care coordination that would function within North Carolina and other states along the east coast migrant stream. Specific objectives were to: 1) increase first trimester enrollment into prenatal care, 2) improve continuity of care, including frequency of visits, and 3) improve perinatal outcomes.

Components of migrant-specific maternal care coordination, which enhance routine medical assessment and intervention, include: public health-oriented bilingual staff, MCH-focused outreach, transportation services, multi-state tracking system, a lay health advisor program, and program evaluation.

MIGRANT-SPECIFIC MATERNAL CARE COORDINATION

1. Bilingual staff

Despite the large number of Spanish-speaking migrant farmworkers served by this center, the only bilingual health care provider at the beginning of the project was the medical director. Many migrant health centers have difficulty recruiting and retaining qualified bilingual staff. Salaries are not competitive, and the centers are often located in isolated rural areas. Many are staffed with National Health Service Corps physicians who have a short term commitment to the agency.

Communication in migrant health centers is frequently mediated by interpreters. Caution must be exercised when using interpreters. Though children are often the only bilingual member of the family, it is extremely inappropriate to ask them to translate. The concept of respect for elders in Hispanic culture conflicts with a child fulfilling such an important role in relation to adults. Because Hispanic women are very modest, it is also inappropriate for bilingual male farmworkers to act as translators. The use of friends and other family members poses problems of confidentiality. Most lay interpreters are unskilled in medical translation and are not required to take a language

fluency test. Ultimately, the monolingual provider does not know what exactly was translated or if something was left untold. If interpreters are necessary they should complete a training course which includes medical terminology and issues of confidentiality. Likewise, monolingual staff should receive training in cross-cultural, interpreter-mediated communication.

Initially, to improve communication we provided onsite Spanish language classes for Center staff. Over the course of the project, the Center administration was convinced of the value of language skills, salaries were raised, and incentives were offered. By 1989 the Center had employed 4 bilingual registered nurses, 2 of whom received financial assistance from the Center administration for further language and cultural studies in Mexico.

2. MCH-focused Outreach

Most migrant camps are isolated and do not have telephones, and many farmworkers do not have their own transportation. These problems led to delays in seeking prenatal care and a high rate of missed appointments. Tri-County Community Health Center has had an outreach program for many years, but without a maternal-child health focus. During the agricultural season, between 5 and 10 community outreach workers visit migrant labor camps to inform people of available services and identify and refer those in need of health care. A basic health screening is completed on all farmworkers in the camps. Outreach workers are temporary staff and, since their work is in the community, they are often not

integrated well into clinic operations. To improve communication and focus on the maternal-child population, the project oriented outreach staff on case-finding pregnant women and protocol for referral to the center. Outreach workers began asking the simple question, "Do you think you are pregnant" of all women in the camps. Women were offered transportation to the clinic on either an appointment or walk-in basis. Following clinic enrollment, prenatal and postpartum home visits were made to most of the migrant women by project or outreach staff to further assess needs.

The Migrant Head Start Program, which provides services to migrant infants and children 6 weeks to 4 years of age, had a policy of asking all migrant women who enrolled their children if they were pregnant and to document where they were receiving care. The Head Start nurse worked cooperatively with project staff to enroll women at the earliest possible and to arrange transportation to clinic appointments.

The absence of bilingual staff in other community health and social service agencies necessitated our involvement in farmworker advocacy. To facilitate communication between migrant women and local hospitals, we initiated an on-call birth coach service which provided the obstetrical unit with a list of volunteer translators to be called for migrant women in labor. Many migrant women were hesitant to seek assistance from the Department of Social Service because of their non-residency status. Assisting women to obtain resources for which they were eligible, such as Medicaid,

emergency financial aid, and food stamps, was a frequent service. Subsequently, the Center arranged for an out-stationed eligibility worker to be located onsite to complete Medicaid applications.

3. Transportation Services

Lack of available and reliable transportation is another major barrier for farmworkers in accessing health care. Transportation was coordinated for prenatal clients through a variety of resources, including project and Center staff, county departments of social services, church ministries, Migrant Head Start, and outreach workers. Following documentation of the serious need for transportation, the clinic received grant support for a van and a bilingual driver specifically for the maternal health program.

4. Tracking System

Because migrant women may leave an area between one appointment and the next, a system was created to address continuity of care through tracking and follow-up, both within the state and between other states.

All pregnant migrant farmworker women signed a consent form to participate in the project at their first visit to the center. The consent form served as a release of information form to be used for data tracking. Also, at the first prenatal visit, women were given a durable plastic "MCH record pouch" to carry a copy of their medical record which was up-dated at each visit. Migrant women with their records entered into prenatal care more easily at a new location and avoided having laboratory or other procedures

repeated unnecessarily. They were given instructions to present the pouch to each center that provided follow-up care. The pouch included several self-addressed stamped postcards to be completed and sent by the receiving agency. At the outset of the project, a letter was sent to other migrant health centers in the east coast stream explaining the project and the tracking system. Each center was requested to ask migrant women for their records and the plastic record pouch and to complete the information on the postcard.

A prenatal log form was initiated for each migrant woman on her first prenatal visit to the Center. Tracking was begun at the initial contact and continued until the postpartum visit. Missed appointments were followed up by letter or telephone message with a new appointment and by a home visit for a second missed appointment. To facilitate tracking of pregnancy outcomes, a permanent address and anticipated location of delivery were documented on this form. These locations were matched with migrant health centers through use of the National Migrant Resource Program's Referral Directory. Outcome data was mailed to the project following written or telephone communication with the identified hospitals and migrant health centers. This process was often expedited by contacts made during site visits to Florida by project staff.

5. Lay Health Advisor Program

A Lay Health Advisor (LHA) program conducted by the project was designed to strengthen continuity of care. Lay health

advisors were migrant women within the farmworker community to whom people would naturally turn for advice. The training program added basic knowledge about maternal and child health practices to this natural helping ability. Following training, LHAs would share this information with other migrant families as they traveled the migrant streams.

An evaluation of the impact of the LHA program on the health status of the migrant population was conducted by the Department of Maternal and Child Health from 1987-1990 as a follow-up study. The LHAs were active in identifying and counseling pregnant farmworker women, and in referring them for prenatal care. Preliminary findings have documented an observed increase in women entering prenatal care in the first trimester of pregnancy and a trend in an increasing number returning for postpartum visits.

The large proportion of Spanish-speaking clients and those with low educational levels made it necessary to develop an appropriate mix of audio-visual and clearly illustrated written materials. Individual health education, at the clinic and the camps, as well as the Lay Health Advisor program, were part of the project's health promotion strategy.

6. Program Evaluation

In 1987, the Center secured funding, through the K.B. Reynolds Foundation and the Comprehensive Perinatal Care Program (CPCP), for a maternal care coordinator and a bilingual clerk to continue project objectives. The continued involvement of TCCHC with the University of North Carolina project has made data

available on key maternal health indicators over a five-year period, from 1985-1989. Original project staff continued to provide consultation on maternal care coordination and to assist with data collection through 1989.

Between 1985 and 1989, a total of 599 women receiving prenatal care at TCCHC participated in the project. Hispanic representation increased from 55% in 1985 to 80% in 1989 (Table 1). With the increase of Hispanic women, a younger prenatal population having fewer pregnancies was noted (Table 2). In 1985 the mean age was 24.5 years with an average of 3.3 pregnancies, compared to the mean age in 1989 of 22.9 years with an average of 2.6 pregnancies.

There was improvement in the utilization of services during the five year period. First trimester entry into prenatal care showed a significant increase ($p=.009$) from 35% in 1985 to 51% in 1989 (Table 3). Also, the percentage of women receiving nine or more prenatal visits rose from 24% in 1985 to 50% in 1989 (Table 4) ($p=.0002$).

Pregnancy outcome data was tracked for 84% (n=500) of the 599 farmworker women who participated in the study. A decreasing trend was observed in the proportion of low birthweight infants (Table 5). In 1985 12% of the newborns weighed less than 2500 grams, compared to 6% in 1989.

Several health indicators showed a slight drop during 1988. The first phase of the project, during which time project staff were located at the Center, ended in 1987. In 1988 there was a six-month vacancy for a maternal care coordinator during which time no

one was responsible for the aggressive case-finding and tracking system implemented in the first phase of the project. This might explain the decline in certain health indicators during that year. A bilingual, master's-prepared R.N. became the Center's maternal care coordinator in 1989.

DISCUSSION

This project demonstrated an association between comprehensive maternal care coordination and improvement in process data and birth outcomes. The elimination of barriers to care, particularly language and transportation, combined with close tracking and follow-up can have a positive impact on a traditionally hard-to-reach population.

Programs working with multi-ethnic groups need to make recruiting and retaining bilingual and bi-cultural health professionals a priority. For services to be accessible and acceptable, migrant health centers need to take into account language preferences, cultural values, education, literacy, living and working conditions.

Despite new laws expanding Medicaid coverage, migrant farmworker women remain essentially uncovered because of citizenship requirements. By 1989, even after aggressive efforts by the maternal care coordinator and an out-stationed eligibility worker to assist farmworker women in the receipt of Medicaid benefits, less than 25% of the women actually received Medicaid.

The tracking of greater than 80% of the pregnancy outcomes provides a far clearer picture of the birth outcomes of farmworker

women attending this migrant health center. Few maternal health programs track pregnancy outcomes out-of-state. In fact, most public health agencies generally consider a woman who has left the area as a "closed case". For the at-risk farmworker woman who is unfamiliar with services, care coordination should ensure that the woman has continued care in her next place of residence. Most farmworker families know when and where they will be moving. This coordination effort can be accomplished by using the National Migrant Resource Program's Referral Directory. The farmworker woman can be given her prenatal record, the address of the center in her next location, and the knowledge that someone is expecting her. If health professionals convey the importance of continuity of care to farmworker women it is more likely that this feeling will be instilled.

Outcome evaluation can be time-consuming and costly. Deciding what variables are most important, asking the right questions, and managing the data are all administrative concerns which require financial resources and technical assistance. In this project, faculty consultants from the University of North Carolina's School of Public Health assisted the migrant health center in designing data collection tools, and procedures for data management and analysis. The success of this project should encourage other migrant health centers to seek technical assistance from their local universities.

REGIONAL MATERNAL CARE COORDINATION - A PROPOSED MODEL

Based on the experience of the North Carolina project, the

National Migrant Resource Program, Migrant Clinicians Network, and National Perinatal Association recently began a collaborative effort to promote coordination of perinatal services. The National Migrant Resource Program provides resources to migrant care providers through development of collaborative relationships between agencies serving farmworkers. The Migrant Clinicians Network (MCN) is a networking organization for health professionals who work with migrant and seasonal farmworkers and their families. MCN has identified the problem of inadequate prenatal care as a priority focus for their efforts in the 1990s. An important part of this model will be the development of new alliances at the national, state, and local level to link organizations which have not traditionally collaborated on behalf of migrant and seasonal farmworkers. Input from the National Perinatal Association is important in order to create alliances at the state level to enhance perinatal services for farmworker women.

The proposed model will expand the concept of care coordination to improve pregnancy outcomes for migrant farmworker women across four east coast states. This model, which includes involvement and participation of migrant health programs, maternal and child health providers, and state perinatal associations, is intended to improve delivery of culturally-appropriate, comprehensive perinatal services to migrant and seasonal farmworker families. The target population is women of child-bearing age who access the migrant health system in the east coast

migrant stream through the states of Florida, North Carolina, Delaware, and Pennsylvania.

The core of this proposal is twofold: 1) the development of four state-level Migrant Health Coordinating Councils which will provide the infrastructure for strategic planning for provision of coordinated comprehensive perinatal services to farmworkers, and 2) the development of resource materials, and interstate coordination and tracking of perinatal care.

Migrant Health Program funds are small in comparison to the primary care, environmental, and in-patient care needs of migrant and seasonal farmworker families. Therefore, it is necessary to identify ways of leveraging limited funds. The Federal Migrant Health Program recommends the formation of state Migrant Health Coordinating Councils to identify opportunities for integration and coordination of services (Migrant Health Program Strategic Work Plan, 1989). Migrant Coordinating Councils exist in some form in each of the four states proposed for this project. The project intends to expand these councils to include state perinatal associations and others working to improve farmworker quality of life. The involvement of these organizations will include a commitment to increase outreach efforts and reduce barriers to services for migrants, as well as, to work directly toward expanding information and service exchange.

SUMMARY

Migrant and seasonal farmworkers require migrant-specific, culturally tailored health care. Special projects, such as the

University of North Carolina project, demonstrate the effectiveness of maternal care coordination in addressing the problems of incomplete, fragmented care. The future delivery of health care to farmworkers relies on the development of partnerships between organizations similar to the Migrant Clinicians Network and the National Perinatal Association. In order to improve the overall health status of farmworkers in this country, it is important for all organizations and individuals providing services to farmworkers to unite in an effort to create real change. Such a collaborative effort can be successful if everyone is working toward a mutual set of goals.

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Table 1. Migrant farmworker women enrolled for prenatal care at Tri-County Community Health Center (TCCHC), North Carolina (percentages)

Ethnic group	1985 (n=109)	1986 (n=125)	1987 (n=99)	1988 (n=120)	1989 (n=146)
Am. White	13	12	9	6	5
Am. Black	20	19	23	19	15
Hispanic	55	66	66	72	80
Haitian/other	12	2	2	3	0
Total	100	100	100	100	100

n=599

p=.0002

Table 2. Mean age, gravida, and parity of migrant farmworker women (TCCHC)

	1985	1986	1987	1988	1989
Maternal age	24.3	22.9	22.4	23.3	22.9
Gravida	3.3	2.9	2.6	3.1	2.6
Parity	2.0	1.6	1.3	1.9	1.4

Table 3. Initiation of prenatal care by migrant farmworker women (TCCHC) (percentages)

	1985	1986	1987	1988	1989
Trimester					
First (<15 wks)	35	41	52	45	51
Second(15-27 wks)	41	30	38	38	30
Third (>27 wks)	24	30	10	18	19
Total	100	100	100	100	100

n=599

p=.009

Table 4. Proportion of migrant farmworker women receiving 9 or more prenatal visits (TCCHC) (percentages)

	1985	1986	1987	1988	1989
No. of PN visits					
1-4	39	30	23	20	19
5-8	37	34	21	26	28
9+	24	35	56	54	53
Total	100	100	100	100	100

n=475; excluding women who had spontaneous or therapeutic abortions

p=.0002

Table 5. Distribution of low and adequate birth weight infants of migrant farmworker women (TCCHC) (percentages)

	1985	1986	1987	1988	1989
Birth weight					
≤ 2500 gms.	12	7	7	8	6
> 2500 gms.	88	93	93	92	94
Total	100	100	100	100	100

n=453; live births only included