

COMMONWEALTH OF PUERTO RICO  
PUERTO RICO DEPARTMENT OF HEALTH  
MATERNAL, CHILD AND ADOLESCENT HEALTH DIVISION  
PUERTO RICO HEALTHY START ELIMINATING DISPARITIES PROJECT  
GRANT NUMBER 5 H49MC00105

**IMPACT REPORT  
2002-2006**

**I. OVERVIEW OF RACIAL AND ETHNIC DISPARITY FOCUSED ON BY PROJECT**

As the PRHSP ended its first grant period (1997-2001), we reexamined the panorama of maternal and infant morbidity, mortality and other health indicators. As a result of this analysis, we determined that the project should continue to target all pregnant women and infants in PR, as marked disparities exist in the health care indicators between the Island and the mainland. These differences made this Hispanic population a prime target for the Eliminating Disparities in Perinatal Health Project.

The PRHSP does not exclude participants on the basis of race, ethnicity, religion or socioeconomic status. However, due to limits in the number of persons who can be served, the project focused its efforts and interventions on the subgroup of the MCH population at higher risk of infant mortality and adverse pregnancy outcomes. This subgroup includes pregnant women who are at risk for adverse pregnancy outcomes due to social, economic, behavioral or medical risk factors. This includes adolescents, women with previous premature, low birth weight or stillborn infants, women who engage in high risk behaviors such as smoking, alcohol/illicit drug use, who are HIV-positive, those who live in violent environments, women with chronic diseases, medical or obstetrical complications, socioeconomic problems that hinder access to adequate medical care or compliance with recommended care guidelines, unwanted pregnancies or who present other psychosocial risks such as perinatal depression. Another segment of the population to whom services will be directed are infants and toddlers who were born prematurely, with low birth weight, NICU survivors, children with congenital anomalies, children with special health care needs, such as those born to HIV-positive mothers, children who live surrounded by high risk behaviors or violence, children of adolescent mothers or whose families present socioeconomic problems that impede access to adequate medical care or compliance with recommended care guidelines.

Our outreach efforts were directed at pregnant women whose characteristics make them candidates to have low birth weight infants, as this is the main cause of infant mortality in the Island. In particular, we target pregnant adolescents, especially those with no prenatal care, and women of any age that are not connected to the available health care system. Low birth weight impacts the infant's survival and future development. LBW infants have a 40-times greater risk of dying in the neonatal period than normal weight babies, and VLBW infant are 200 times more likely to die than normal weight babies. Underlying causes of infant death have social and economic roots requiring close collaboration among health and human service programs at state and local levels. A significant number of infant deaths remain preventable through public health activities.

Educational activities were directed toward three distinct groups: project and community participants (women of childbearing age, adolescents, general public); project staff (Home Visiting Nurses and Outreach Workers); and health professionals (primary health care providers and Consortium members).

## **II. PROJECT IMPLEMENTATION**

### **1. Outreach and client recruitment**

- A. Outreach and Client Recruitment did not exist as a formal component during the first grant cycle of the PRHSP (1997-2000). At that time, client recruitment was done mainly through collaboration with WIC, Medicaid, OB/GYN offices, and by word of mouth. Both the Home Visiting Nurses (HVN) and the Community Health Workers (CHW) shared the responsibility of disseminating information about the Home Visiting Program (HVP) in the aforementioned locations, although the CHW's principal role was to offer group educational activities in the community.

With the approval in 2002 of the Healthy Start grant for the current reporting period, the Outreach and Client Recruitment component was formalized and strengthened. This enabled us to be more proactive and focused in identifying and targeting the highest risk populations. Instead of waiting for referrals, the CHWs began carrying out active case-finding activities. Although the CHWs were performing outreach activities for the MCH program before the PRHSP, they had not received training in this area. Therefore, one of the first activities of the Eliminating Disparities Project was to conduct a three-day training on outreach strategies, community work, MCH issues and other topics of relevance to the role that is now expected of the CHWs. A Procedures Manual for Community Health Workers was developed to establish their role, responsibilities and service protocols.

Currently, although the CHWs continue to be an important source of community education interventions, they are responsible for identifying women and children who are not connected with the existing system of health and human services in the community. They perform an initial assessment of their needs and refer potential clients for the Home Visiting Program. For those who do not meet admission criteria for the HVP, or who have a need for only a specific service, the CHW will generate referrals to the appropriate service and ensure that the woman or child receives the needed services. CHWs also assist the HVNs in providing follow up visits to hard-to-reach participants, tracking referrals made and ensuring they are completed.

- B. The main resources required for this component are the cadre of CHWs who carry out diverse outreach activities to identify potential HVP clients, and a strong network of private and public agencies in the community. The CHWs visit schools, shopping centers, WIC and Medicaid offices, beauty salons, government offices, faith communities, sport arenas, housing developments, and other settings where there are large numbers of women of childbearing age. To assist them in carrying out more effective outreach efforts, they identify community leaders who can partner with them in the dissemination and identification activities. An important part of their networking efforts is to identify local government and private agencies and CBOs that provide services to the MCH population in order to maintain an up-to-date service directory for their community. The CHWs establish contacts with the community agencies to enhance the identification and possible recruitment of participants for the HVP.

During the project period this core service has been evaluated and no significant changes have been recommended.

- C. The main difficulty faced in the development of this component was the initial resistance offered by the CHWs when their roles changed. However, after they went through the Outreach training and received specific instructions, they understood the importance of their role and the significance of their responsibility. The combined effort of the CHW and HVNs makes it possible to reach the established objectives. Culturally responsive strategies were implemented to increase consumer participation in the activities, resulting in a more effective approach to participants and more acceptance of the services offered.

## **2. Case Management**

- A. The Case Management/Care Coordination services have formed the core of the Home Visiting Program since its inception in 1995, antedating the first Healthy Start grant period (1997-2001). It was created in response to a change in the health care environment, from comprehensive health and social services offered in government-run clinics to a privatized Medicaid Managed Care model. With this change, our most vulnerable population faced a fragmentation of services and an array of providers in the community who had to be accessed directly and separately. This represented a challenge for both the clients and the providers, who had little experience dealing with the complex and multiple risk factors of the Medicaid population. The Home Visiting Program's case management and care coordination services helped to close the gap between the population and the providers. When the Healthy Start Initiative call for proposals came in 1997, Title V saw it as an opportunity to strengthen and expand the home visiting services. During the first Healthy Start grant, the Health Care Reform expanded to the entire Island, and the HVP grew right along with it, adding more health regions as they fell under the HCR. Those years were also dedicated to training staff, developing procedures and protocols, designing the data collection forms, participant records and evaluation systems.

The HVP aims to facilitate access to health care services available in the community by linking pregnant, interconceptional and parenting women, and children up to 24 months with the providers that can address their needs. It helps a population with multiple social and medical needs navigate the complex health and human services care field. It is community based and family centered by means of the following services:

- thorough, comprehensive risk assessment including biopsychosocial aspects, sociodemographic information, medical (obstetrical or pediatric) risks, past medical history, behavioral risk factors, housing, education, insurance status, etc.
- referrals to the health and human services needed by the participant family
- follow up to ensure the services to which the participant is referred are received
- education and anticipatory guidance on diverse health topics
- smoking cessation interventions for pregnant smokers

When the second Healthy Start grant was awarded to the PRDH in 2002, three new core components were added: Outreach, Perinatal Depression Screening and Interconceptional Health. The latter two had a direct impact on the HVP, as these two services were incorporated into the HVP protocol. The objective of the HVP continued to be ensuring that pregnant participants receive the optimal level of prenatal care to safeguard their health, improve birth

outcomes and decrease the number of LBW and premature infants; interconceptional participants receive family planning services to increase the intergenetic period and their general health status; children receive adequate care according to EPSDT standards and are adequately immunized; CHSCN receive appropriate care and services for their condition; families receive the support services they need, including WIC and other government aids to which they are entitled; and that families with high risk behaviors such as cigarette smoking, alcohol use/abuse, illegal and legal drug abuse and family violence are identified and receive appropriate interventions. Referrals to the HVP come from WIC, Medicaid, neonatal units, the PREEMIES Project at the University Pediatric Hospital, providers, the Perinatal Nurses in each health region, and from other participants. Other potential participants are identified by the CHW through their outreach efforts.

Once the referral is received, it is evaluated to determine if it meets selection criteria and is assigned to the local HVN. At the initial visit, which is done within one to two weeks of receiving the referral, the HVN performs a comprehensive needs assessment of the family's situation. The assessment includes medical, social, economic, environmental and psychological aspects that can affect the participant and her immediate family. The risk assessment tools include information about the participant's medical history as well as social and behavioral characteristics. They also screen for alcohol use, perinatal depression and domestic violence using specialized screening instruments. Because of the extent and scope of the assessment, it may take place over more than one visit. Upon completion of the needs assessment, the HVN, in conjunction with the participant, prepares a prioritized problem list and establishes a sequential action plan to correct the situations affecting the health and well-being of the client's family. The HVN generates referrals and offers education to the participant family regarding the identified issues. Subsequent visits are performed according to the frequency established in the Home Visiting Manual. During these visits, the HVN ensures the referrals have been completed, monitors changes in the participants' needs and offers education and support to meet the family's current situation.

- B. During the reporting period, Home Visiting services were provided by an average of 100 registered nurses in most municipalities throughout the island, including one of the two offshore islands. All are registered nurses with clinical experience in pediatrics, obstetrics or other areas. Their cultural and linguistic characteristics are similar to the population they serve. Most of the HVNs reside in the same municipality where they serve.

An important resource to ensure quality of the services provided by the HVNs is continuing education and training. HVNs attend an annual two- or three-day formal training session sponsored by the PRHSP. In addition, they have access to other educational opportunities throughout the year, depending on the local needs and resources. The continuing education activities include topics directly related with their work as HVNs, both in the MCH content area as well as in case management methodology. Topics are selected based on a learning needs assessment, feedback from the regional staff, findings of the Title V MCH needs assessment, and any changes in policies or standards of care.

Having a Home Visiting Program Procedures Manual that clearly establishes their roles, responsibilities, procedures and protocols to follow is imperative to ensure uniformity when

developing a project over a large geographical area. The HVP Manual establishes a caseload of 50 active families and the number and frequency of visits expected for prenatal, interconceptional and pediatric participants. It also includes all the data collection forms and other program documentation that must be submitted to the Program Evaluator monthly and annually.

The HVNs are a critical component of the MCH team at the regional level. They work in close collaboration with the CHW assigned to the same municipality. Direct supervision is offered by the regional MCH Coordinators, who in turn responds to the regional MCH Directors. In order to perform their case management/care coordination duties, HVNs must also collaborate and link with services within that community. In each municipality, the HVP and the CHW develop and maintain a directory of all the services (public, private and community-based) available in their area so they can make the necessary referrals for their clients.

To increase the service capacity of the HVNs, they refer active HVP participants to the CHWs for follow up under certain circumstances: to ensure that a referral is completed and the services are received, to check on compliance in a particular area, or when the HVN goes on annual leave. The CHWs also assist the HVN in reaching potential participants after the HVN pays more than two visits where the participant is not found at home. In this manner, the workload is shared and the HVN's time is used in a more effective manner.

- C. The main barrier to enrolling participants is the limitation in staffing. Each HVN has a caseload of 45-50 families, and there are not enough nurses to fulfill the demand for services. The possibility of hiring additional nurses is dependent on the availability of Title V funds and prevailing administration policies regarding human resources.

Our project area encompasses the entire island of Puerto Rico, including two off-lying island municipalities. The municipalities range in size from less than 10 to over 100 square miles, and many participating families live in remote areas with poor access roads. Many do not have telephone service. This combination of factors can make it difficult for the HVN to schedule visits, particularly the initial home visit.

We face few barriers on the part of the client. Since our services are home-based, participant's lack of transportation is not an issue. A few potential participants refuse home visiting services due to fear or suspicion, particularly if someone in their household engages in illicit activities. Others are simply not interested in spite of the nurses' best efforts to engage them. But for the most part, participants welcome the services offered by the HVN and the project.

On the other hand, the strength of the Home Visiting Program lies in the quality of services offered to our participants. The satisfaction level of our participants is high. Since the communities where the HVNs serve are very close-knit, it is well known in the community that HVN services are worthwhile and they have a very positive acceptance.

### **3. Health Education and Training**

- A. Program Participants: After the HCR was implemented, the provision of health education was delegated to the health insurance companies and providers contracted by the government to offer services to the population in each health region. These companies designed a health education plan based on the recommendations of ASES. Most educational activities were held in providers' offices and in community settings. The HVP takes health education into the home, as HVNs offer one-on-one education and anticipatory guidance tailored to each family's needs and stages. Their educational efforts are complemented by the CHWs, who are in charge of offering group education activities at the community level on various MCH topics, including parenting, family planning, prevention of unintentional injuries, prenatal care, infant growth and development, immunizations, etc. Although these activities are open to the community, HVP participants also attend and benefit from them. Educational activities are complemented by appropriate printed educational materials, carefully evaluated to ensure linguistic and cultural appropriateness.

Community Participants: Community-level education and health promotion activities, including health fairs, play an important role in our efforts to disseminate information about MCH issues and the services we provide. They also serve as one of the principal means for client identification and recruitment. These events enable us to carry a prevention message to a wider audience than can be reached through the HVP. Community Health Workers offer various types of educational and outreach activities in schools, neighborhoods and community groups. Emphasis is given to the most pressing maternal and child health issues in each community, particularly in the areas of family planning, prevention of unintentional injuries, STI/HIV prevention, prenatal care, prevention of premature births and others.

Staff: Central level staff, regional MCH staff, HVNs and CHWs are offered several continuing education activities throughout the year. Using Healthy Start funds, we provide an annual two- or three-day in-service training, which is repeated in four geographic areas to facilitate attendance of the regional staff. This strategy also decreases the funds spent on local travel expenses and time spent in transit to the training site. When new guidelines or changes in program activities are implemented, the Central Level project staff travel to each of the health regions to offer the necessary clarification.

Health Care Providers: Using Healthy Start funds, we contract a local continuing education provider to deliver a series of continuing education activities on current topics in maternal and child health. The target audiences for these activities are primary care providers (obstetricians, pediatricians, family practitioners and nurses). This activity is offered in several locations throughout the island, during evening hours, to make it more accessible and attractive to providers. In addition, MCH and PRHSP staff participates as presenters in scientific or professional meetings, contribute articles to professional and general interest publications and newspapers, and appear in television and radio programs.

- B. The resources needed for this component are twofold: qualified, knowledgeable staff and educational or reference materials. To ensure the educational interventions are uniform and up to date, the central office staff has developed a series of flipcharts that include the health related topics that must be covered by trimester of pregnancy or developmental stage. HVNs use the appropriate one for the participant's stage of pregnancy or child growth and development.

Educational booklets are provided to reinforce the information. Videos and reference books are also available to be used as needed.

- C. One of the strengths of our health education efforts is the existence of a group of health education professionals within the Title V structure. In Puerto Rico, the profession of Health Educator is regulated and licensed. Only persons with a bachelor's degree in Community Health Education or master's in Public Health Education, and who have passed the state licensure exam can be called Health Educators. There are licensed Health Educators in five of the eight health regions. They respond directly to their respective Regional MCH Director. In addition, at the Central Level we have one licensed Community Health Educator under the supervision of the Project Coordinator, who is a Public Health Educator as well. There is a second Public Health Educator in the Adolescent Health Program. As of 2004, the Healthy Start Project Coordinator has assumed the coordination of the Title V Health Education Component. In this capacity, she ensures that the health education messages presented in the health regions carry a uniform message.

At the local level, health education interventions with participants are carried out by the Home Visiting Nurses, and the community educational activities by the Community Health Workers. They receive technical assistance from the regional and the Healthy Start Health Educators.

Individual and group health education activities are generally well received by our constituencies. The fact that we are part of the Health Department carries weight with professionals in the community. Our staff looks forward to participating in their annual training, as the topics respond to their needs and interests.

#### **4. Interconceptional Care**

- A. Interconceptional care is provided as part of the continuum of services offered to HVP participants from pregnancy to 24 months after delivery. It follows the same structure and intervention model as the HVP interventions in the prenatal period. The rationale for the interconceptional intervention is to provide parenting women with the information they need to make informed decisions regarding their health, particularly in the areas of preventive health checkups, reproductive health, family planning and adopting and maintaining healthy lifestyles and behaviors.

Although women have the right to receive preventive medical attention under the HCR, the reality is that comprehensive preventive services are difficult to access in the current health care system. The number of providers, especially in rural areas, is limited, as are their hours of service. Appointments are often given for a remote date. In addition, providers are reluctant to dedicate the time required to provide anticipatory guidance or preventive health interventions, as this is not considered a billable service under our health care system.

Contraceptive methods, although widely available in pharmacies, are not covered by the majority of the health care plans. Through their educational and case management interventions, the HVNs educate participant women on the importance of preventive care, encourage and motivate

them to obtain such care, facilitate obtaining contraceptives paid by Title V to eligible participants and coordinate any medical, social or other support services they need.

In addition to tending to the health of the interconceptional women, the HVNs provide education and case management services for infants and children. During the first 24 months of life, they ensure that the EPSDT schedule is being followed, that the children are visiting their pediatricians or other providers regularly, and that they receive the immunizations and any needed treatment in a timely fashion. They educate the mothers, fathers and other caregivers about expected growth and development, children's health, common childhood illnesses, developmental milestones and signs of delays, prevention of unintentional injuries and SIDS, breastfeeding, adequate nutrition after weaning, and many other important topics that promote optimal health for the children.

- B. The interconceptional services are primarily provided by the Home Visiting Nurses and complemented by the Community Health Workers' interventions. In our current model, each HVN has a maximum caseload of 50 families. CHWs do not carry a caseload, but lend a hand to the HVN when necessary to follow up on a particular case. They have primary responsibility for carrying out educational and outreach activities in the community, which are vitally important complements to the core HVP. The CHWs can reach a much greater number of pregnant and parenting women with their educational interventions.

In addition to the direct service staff, it is necessary to have adequate supervision at the local and regional level to ensure that the quality of services provided meets the program's standards. For this purpose we have Regional Coordinators, most of whom are also nurses, as well as Regional MCH Directors. They in turn respond to the MCH Director, while receiving also programmatic guidance from the central Healthy Start staff.

Non-personnel resources needed for this service are educational materials to reinforce the HVN's efforts, participant record forms and other data collection instruments. In order to implement preconceptional or interconceptional care as a standard of care for all reproductive age women, it would be necessary to establish a public policy and reimbursement schedule for these services. Until that happens, it will be left to individual providers' practice and criteria.

- C. As with the Case Management, Community Outreach and Consortium models, the fact that the PRHSP is located within Title V is a definite asset for the success of the project. When the Interconceptional Care model was introduced as a requirement, it just built on the Case Management model already in place, using the same staff and basic intervention protocol.

## **5. Depression Screening and Referral**

- A. The original Eliminating Disparities in Perinatal Health grant proposal submitted by the Puerto Rico Healthy Start Project did not include specific interventions to screen for perinatal depression. However, when the PRHSP was funded the Postpartum Depression and Interconceptional Health models were incorporated. Around the same time, a case-control study was conducted by the MCH Division to identify factors that contribute to LBW. The results revealed that suicide attempts or ideations (commonly used as a proxy for depression) were

significantly associated with LBW. Based on these results, the PRHSP developed and conducted a full-day seminar on postnatal depression as part of the in-service training activities for HVNs. Postpartum depression screening was incorporated as a standard of care for all interconceptional participants. Since then, HVNs have administered the Edinburgh Postnatal Depression Scale (EPDS) as part of their interventions

The process of selecting an appropriate screening scale included the development of an expert panel with representatives of the PRDH and the Mental Health Services and Addiction Prevention Administration Office (ASSMCA, Spanish acronym). The expert panel performed a meticulous literature review and identified the most appropriate screening tools that can be used with our population. After performing the review and narrowing down the field of available instruments, the expert panel chose the EPDS because it was the most widely used and was validated for Spanish speaking populations. Once the screening tool was selected, a pilot test was conducted with our participants to ensure cultural and linguistic appropriateness. The EPDS is a screening tool that identifies the presence of depressive symptoms and the need of a referral for a formal evaluation and treatment. This screening tool is composed of 10 statements related with depression symptoms, especially focusing on the post partum period.

- B. An in-depth training in perinatal depression screening was provided to the HVNs in 2002, and continuing education is given by the PRHSP Coordinator and Social Worker. During training the HVNs receive information regarding the signs and symptoms of perinatal depression and its implications during pregnancy and childrearing, particularly in the bonding process with the infant. The training also includes practice in the correct administration and interpretation of the screening tool as well as referral procedures to obtain appropriate evaluation and treatment.

Depression screening is a standard part of the interventions of the HVNs. In the early stages of the initiative, the depression screening tool was administered to participants only in the interconceptional period, but in 2003 the protocol changed to include the prenatal period as well. HVNs are required to administer the EPDS to every participant a minimum of three times: during the third trimester of pregnancy and during the regularly scheduled interconceptional visits two and six months after the delivery. The HVN can administer the instrument on additional visits if deemed necessary.

After the screening is administered, the HVN will evaluate the score according to a pre established scale and will provide orientation and referrals to mental health professionals if required. Mental health services for GIP participants are provided by behavioral and mental health providers under contract with ASES. Other sources of care in the community are CBOs, university clinics and faith based programs. In those situations when it is difficult to get access to services, the case is referred to the PRHSP Social Worker who provides backup in case management and service coordination.

- C. Two main barriers prevent our participants from obtaining the services they need. The first barrier is related with the established procedures to obtain mental health services for GIP beneficiaries. Usually, a phone call is needed to obtain an appointment to get the services and the call should be placed by the participant herself, because an initial telephone screening is performed. This represents a barrier to those participants who do not have telephone service, or

those participants who want to be represented by a relative or support person. The second option to obtain an appointment for mental health services is to go directly to a service provider's office, but this option is difficult for the many participants who live in remote rural areas or who have transportation problems.

The second barrier is related with the prejudice and stigma associated with mental health issues. Some participants don't want to accept their need for mental health services; this requires continuous support and orientation to encourage them to use the available services. In this situation, the Social Worker will visit the participant's home along with the HVN to perform educational and motivational interventions.

In order to overcome the system barriers, the PRHSP tried to develop a cross-referral process agreement with the MCOs contracted by the GIP. By this agreement, we would refer women to them for mental health diagnosis and treatment, and they would refer women who need home visiting services. Unfortunately, it was not possible to make such agreement with the MCOs. Efforts in this area continue at various levels, and as this report is being written, a formal collaborative agreement between the MCH Division and ASSMCA, the state mental health agency, is being drawn up to facilitate mutual identification and referral of women and families in need of mental health services.

## **6. Local Health System Action Plan**

- A. The health care environment in Puerto Rico underwent a radical transformation in the 1990s. To understand the changes that led to the current perinatal health care system, it is essential to explain the Puerto Rico Health Care Reform and the context in which the MCH programs conduct services and activities.

Before the implementation of the HCR, Puerto Rico had an ample supply of health care providers and resources, but not all residents had equal access to them. Direct patient care was provided by two distinct parallel systems: public and private. The public sector, administered by the Department of Health, was the main provider of direct patient services for the medically indigent population. A well-defined primary, secondary, tertiary and supratertiary perinatal health care system was in place and the mechanism for referrals among the levels was clearly established. To receive services, beneficiaries had to attend primary care public health care facilities and their ability to select providers was limited. Specialized and subspecialized services were available but concentrated in large Medical Centers. Basic prenatal services were available in all the community levels. The PRDH provided funding, supervision and guidelines to be followed in the clinics. During that time, the function of the Department centered on curative and rehabilitative aspects of health care. This system was responsible for addressing all health care needs for almost half of the population with scarce resources. On the other hand, the private health care system served 42% of the population who paid out of pocket or through third party payers.

The Puerto Rico Health Care Reform (HCR) began with the enactment of Law No. 72 on September 7, 1993. The basic principles guiding the Health Care Reform were to eliminate the public and private sector disparity and discrimination in health care; guarantee access to quality

health care to all residents; have freedom for selection of a primary health care provider; increase the efficiency and productivity of the health care industry through a competitive mechanism; improve the quality of services; and modify the role of the Puerto Rico Department of Health, changing its major focus of attention and directing it to the areas of health promotion and disease prevention.

As of July 1, 2000, the HCR implementation phases had been completed and the HCR extended to the entire Island. Since then, 1.8 million residents participate of the government insurance plan, including persons previously covered by Medicaid, veterans (non-service connected), Medicare beneficiaries (Part A and B), police officers and their families, public employees and their direct dependents. Services included in the GIP for basic health coverage are: preventive ambulatory services, surgical, hospitalization, maternity, mental health, prescription drug services, dental, emergency room, general and drug rehabilitation, ambulance (ground and air), laboratory testing, x-rays and catastrophic coverage including AIDS, TB, cardiovascular, cancer, neonatal and intensive care, among others.

The main goals of the HCR were to bridge the gaps in services between the public and private sectors, eliminate the disparities within this two-tiered health care system, allow participants freedom to select health care facilities and providers, improving and guaranteeing universal access to adequate health care services.

As a direct result of health care reform implementation, all direct perinatal health care services are provided by private health care professionals through a capitated managed care delivery system. These services are administered by the local health care insurance companies. The Health Insurance Administration (ASES) is the government agency charged with requesting bids from health insurance carriers, evaluating the proposals and then establishing service contracts with the selected insurance companies to provide all the services included under the GIP. Another consequence of HCR implementation has been the transfer of the great majority of government-owned health care facilities to private companies through either rental or purchase.

The HCR transformed the PRDH from a disease-oriented agency to one that encourages health promotion and primary, secondary and tertiary disease prevention programs within the context of a comprehensive continuum of public health services. The PRDH was also entrusted with the task of establishing and monitoring quality of perinatal health services according to established standards of care. In order to comply with the core public health functions, the categorical programs continue to be under the direct control of the PRDH. On the other hand, privatization of services and facilities have presented the PRDH with challenges related to securing facilities and basic utilities required to provide categorical services. Gathering information needed to track performance measures and outcomes is difficult, since private providers and companies are leery of sharing information with the PRDH.

- B. The components involved in the development of our goals in this area include the Title V Director, PRHSP central level staff, the PRHSP Consortium, members of the regional SSDI (State System Development Initiative) boards, senior regional MCH staff, and other stakeholders and collaborators.

- C. Ensuring a comprehensive perinatal health care system in which services that comply with established guidelines are available to the MCH population is the main challenge facing Title V and the PRHSP. It requires a significant amount of cooperation and collaboration among all those interested in the health and well-being of the MCH population. The greatest difficulty stems from the increased number of variables and key players that must be taken into consideration to ensure that a functional and comprehensive perinatal health care system is in place. One of the most significant barriers we face is that many of the private health care providers now serving the high risk population, previously served within the public clinics, lack the time, team approach, economic flexibility and the public health perspective needed to provide services to this particular group. The structured referral system that existed within the public health sector to deal comprehensively with high-risk pregnant women and their children has weakened. Therefore, this area must receive special attention in order to develop a cohesive perinatal health care system that will benefit the entire MCH population after all the changes that have resulted from the HCR implementation. The structure of the HCR system has new organizations, providers, partners and confusing mechanisms of operations that many times affect the coherence, compatibility and communication among its components. This situation ultimately impacts the effectiveness of the perinatal system in achieving its goal of reducing the maternal and infant mortality rates.

## **7. Consortium**

- A. The Puerto Rico Healthy Start Consortium had its origins in the Maternal and Child Health Advisory Board established by the Secretary of Health in 1993. The Infant Mortality Committee, one of the workgroups of the current Consortium, was given legal status by Law No. 70 of 1997, which mandates the Secretary of Health to establish a committee charged with the responsibility of developing studies and providing recommendations for the reduction of infant mortality. This group was instrumental in selecting service models and in writing the original grant proposal that created the PRHSP. The Consortium as it exists today took shape during the first Healthy Start grant period. A key event in this process was a technical assistance activity on Coalition and Consortium Building held in March 1998. The consultant led the members in establishing the vision, mission and goals for the Consortium. In May 1998, the Consortium was formally constituted when its members approved the Puerto Rico Healthy Start Consortium By-laws. The mission of the Consortium has remained unchanged over the years: “To improve the health and quality of life of pregnant women, children younger than two years old, and their families in Puerto Rico”. The By-laws established that the Consortium will have three working committees, the Infant Mortality; Nominating, Membership and By-laws; and Publicity committees. They also defined its governing body, procedures to elect officials and established the Modern Edition of Robert’s Rules of Order as the guide to be followed whenever difficulties arise during the meetings.
- B. The components involved in the developing the Consortium include the Title V Director, PRHSP central level staff, regional MCH staff, and of course the representatives of the various constituencies that share our interest in the MCH population. It is crucial to have a staff member at the central level that has the Consortium as a primary area of responsibility and has the skills and experience to develop diverse strategies to involve the community. Our PRHSP team was successful in maintaining a Central Consortium made up of professionals and agency

representatives, but was not able to involve consumers. The turning point in our long list of attempts to have real, meaningful consumer participation came when the PRHSP Social Worker was hired. She brought to the team her expertise and experience in organizing Head Start parents' groups, and innovative ideas on how to achieve it.

- C. Please refer to section C, Additional Elements, for a thorough discussion of this aspect of Consortium development.

## **8. Collaboration with Title V**

- A. The PRHSP has been part of Title V since its inception. In fact, the core service, Home Visiting (Case Management and Care Coordination) began in 1995, before the first Healthy Start grant period, to respond to an identified need that arose with the change in the health care environment from comprehensive health and social services offered in government-run clinics to a privatized Medicaid Managed Care model. This change meant that our most vulnerable population faced a fragmentation of services. When the Healthy Start Initiative call for proposals came in 1997, Title V saw it as an opportunity to strengthen and expand the home visiting services.

The Title V program and PRHSP are located administratively in the Assistant Secretariat for Disease Prevention and Control, (known as Assistant Secretariat for Family Health and Integrated Services since 2006). The Title V Director acts as director of the PRHSP also, and the Regional MCH Directors, Regional Coordinators, Home Visiting Nurses and Community Health Workers are all staff paid with Title V funds. The PRHSP central level staff members are the only ones supported by PRHSP funds. However, the administrative and support staff (accountant, purchasing agent, secretaries, etc.) are also Title V staff who provide support to the PRHSP.

In addition to sharing staff, the Puerto Rico Healthy Start Project and Title V pursue common goals and objectives. This has enabled us to coordinate and collaborate effectively in the development and implementation of the Home Visiting Program. The Puerto Rico Healthy Start Project and Title V share common priority areas such as decreasing infant and maternal mortality, increasing access to preventive health services, developing the MCH infrastructure, increasing collaboration and coordination, decreasing adolescent pregnancy, decreasing unintentional injuries, increasing awareness of MCH issues, decreasing behavioral risk factors among pregnant women, particularly among adolescents, and professional development.

The PRHSP services contribute to several of the activities described in the Title V pyramid. Under the "Enabling Services" section, PRHSP contributes with the case management/care coordination services provided under the HVP, health education and outreach. In the broader "Population Based Services" level, our project collaborates with Title V related activities such as referral for postpartum care, education, promotion of compliance with the immunization schedule, mass media campaign to promote early prenatal care, health promotion ("Back to Sleep," folic acid, injury prevention), prevention of adolescent pregnancy, avoiding high risk behaviors, including smoking cessation interventions, and promotion of breastfeeding and good nutritional practices. Among the "Infrastructure Building Services" the PRHSP has contributed

to Title V efforts to perform needs assessment, establishing memorandums of understanding, HS Consortium training and developing a computerized information gathering system.

Puerto Rico Healthy Start funds and staff have played a key role in conducting the activities aimed at achieving these common goals and objectives. They have contributed to the improvement of the Home Visiting Program by allowing us to provide the personnel with up-to-date training on issues related to their jobs. It has also allowed the purchase and development of educational materials. Funds have allowed HVN to have incentives for our participants and to cover costs related with local travel expenses for the HVN's. They have also allowed us to document the progress and outcome of our HVP. Studies have been conducted to identify high-risk behaviors among pregnant women and to identify high-risk behaviors that contribute to low birth weight the leading contributor of IM in PR. The PRHSP has sponsored training on topics that directly affect pregnancy outcomes, such as perinatal substance abuse and perinatal health care system.

- B. The components involved in this area include the Title V Director and central level administrative and support staff, PRHSP central level staff, regional MCH staff (directors, coordinators, administrative staff, HVNs and CHWs), and other PRDH administrative staff.
- C. The collaboration between Title V and the PRHSP is an asset to both parties, as we share a mission, vision, goals and many programmatic priorities, including decreasing infant and maternal mortality, adolescent pregnancy, unintentional injuries, and behavioral risk factors among pregnant women; increasing access to preventive health services, collaboration, coordination, and awareness of MCH issues; and strengthening the MCH infrastructure and professional development. Since the PRHSP was integrated to the Title V program infrastructure from its inception, the collaboration, cooperation and coordination activities take place without duplication of services.

## **9. Sustainability**

- A. The sustainability of the PRHSP is intrinsically tied to its location within the Title V structure. Please refer to Section 8 for details.
- B. The federal funds assigned to the PRHSP are used to support and expand upon the activities of the MCH Division's Home Visiting and Outreach programs. In particular, Title V funds are used to pay salaries and benefits for the HVNs, CHWs, regional and central level MCH staff. During the reporting period, the estimated Title V expenditures associated with the PRHSP amount to \$16,074,221.
- C. The location of the PRHSP project within the Title V program ensures the continuation of the main service models (Case Management, Outreach and Consortium) even in the absence of Healthy Start Initiative funding. Other support activities, particularly in-service training, can be obtained through collaboration with interested partners in the public and private sectors. Purchase of educational and promotional materials would have to be curtailed, although many titles are being produced in-house at a lower cost in order to maximize the funds available.

### **C. ADDITIONAL CONSORTIUM ELEMENTS:**

1. The Puerto Rico Healthy Start Consortium had its origins in the Infant Mortality Committee established by the Secretary of Health in 1995. This committee was subsequently given legal status by Law No. 70, enacted in August 1997. It mandates the Secretary of Health to establish a committee charged with the responsibility of developing studies and providing recommendations for the reduction of infant mortality. The law requires this committee must include representatives from ASES, Department of Family Affairs, and Department of Education among its nine members. The MCH Director, who represents the Puerto Rico Department of Health, heads the committee. This committee served as the framework upon which the Healthy Start Consortium has grown and developed.

In May 1998, during the first Healthy Start grant period, the Consortium was formally constituted when its members approved the Puerto Rico Healthy Start Consortium By-laws and established the Consortium Mission, Goals and Objectives. Its mission is “To improve the health and quality of life of pregnant women, children younger than two years old, and their families in Puerto Rico”. The By-laws establish the Consortium will have three working committees: Infant Mortality; Nominating, Membership and By-laws; and Publicity. They also define its governing body, procedures to elect officials and establish the Modern Edition of Robert’s Rules of Order as the guide to be followed whenever difficulties arise during the meetings.

The most challenging task the Puerto Rico Healthy Start project has faced up to now has been to achieve consumer attendance in Consortium meetings. To overcome childcare and transportation barriers, arrangements were made to offer reimbursement to consumers for these expenses. However, there was little interest or acceptance of this alternative. We believe that part of the resistance to participate in the consortium is due to the large project area as well as cultural barriers. In general, women who participate in our project are reluctant to voice their opinion and shy away from expressing their point of view in front of strangers, especially if they perceive them to be well trained professionals. We addressed this situation with the creation of Participants’ Committees in the Healthy Start Project Area. These committees are located within the participants’ community. They work with the Home Visiting Nurse and Community Health Workers to identify their problems and search for alternatives to solve them with the support of the Consortium members and PRDH staff.

2. The Puerto Rico Healthy Start Consortium By-laws define the working structure of the Consortium. The Consortium has as a governing body, a Steering Committee. Three of these members (President, President-Elect and Secretary) are elected for one year terms. The others are elected for a two year term and must include representatives from the health regions, consumers and the past president among others. In addition to establishing the Steering Committee, the By-laws provide for the establishment of three Committees. These committees are the Membership, Nominating and By-laws Committee; Infant Mortality Committee; and the Publicity Committee. Each of these committees developed their own objectives, strategies and activities to achieve them. Members are allowed to participate in the committee where they feel they can contribute most.

Meetings are approximately every other month, although extraordinary meetings are convened as the need arises, particularly surrounding grant applications, progress reports submission or for coordination of Consortium related activities. Consortium members receive an update of the project's activities and progress during the meeting.

Over time, the Consortium has achieved a greater level of cohesion among its members. During the meetings, members have the opportunity to network and establish collaborative efforts among themselves and with the PRHSP.

Currently the Consortium has 45 members. Among them there are representatives of the following entities:

Puerto Rico Department of Health: Title V Acting Director and MCH Division Sub Director, Home Visiting Program Nurses Coordinator, Director of the Planning Division of the PRDH. The PR Healthy Start Project Coordinator, Social Worker, Evaluator and Health Educator attend all meetings to provide the members with information regarding the project's accomplishments and future endeavors. The PRHSP Social Worker assists the Consortium President with the logistics associated with securing the facilities for the meeting, mailing the invitations, confirming attendance, reproduction and preparation of any materials to be distributed during the meetings and other logistical tasks.

Other Government Agencies: PR Department of Education, PR Department of Family Affairs, Housing Department, Medicaid, WIC and the Administration for Mental Health and Anti-Addiction Services.

Academia: Experts in the MCH area from the School of Public Health of the Medical Sciences Campus of the University of Puerto Rico have been involved with Consortium activities since its beginning. Their contributions have proven invaluable for the PRHSP. The group of experts includes the Director of the Midwifery Program, and professors from the fields of health education and nutrition.

Providers and Health Industry Representatives: Health Insurance Administration (ASES), health insurance companies providing services to the project's target population, two neonatologists, a forensic pathologist, a representative from the American Academy of Pediatrics, Director of the Neonatal Screening Program for Hereditary Diseases and the Medical Director of the Pediatric University Hospital.

Non Profit and Community Based Organizations: March of Dimes, PROFAMILIA, Aspira and Fondos Unidos (United Way), and others. PROFAMILIA is a CBO that works with reproductive health education and services. Aspira is a CBO that is currently involved in developing Early Head Start Projects. Fondos Unidos is a non-profit organization that collects funds to support other non profit organizations that work with family services. Also, they have a referral telephone line system.

Faith Community: Representatives from “El Shadai” Social Action Foundation of Carolina Baptist Church, Episcopal Social Services, and a Baptist Women Group Association of Puerto Rico.

3. The Consortium’s main role is to serve as an advisory committee for the project and its staff. Members are regularly kept abreast of the progress attained by the Home Visiting Program, the PRHSP project case management/care coordination services. When faced with opportunities to develop new projects or plan Consortium activities, members are actively involved in these processes. They are consulted regarding the direction future project activities should take. Members have in the past become actively involved in the organizing committees for such activities. Their input and suggestions have contributed significantly to the success of past PRHSP supported activities.

The Consortium’s role is to advise the PRHSP on matters of policy and program activities that would help the PRHSP to achieve its goal of reducing infant mortality and improving the health and well being of mothers and children on the Island. Its functions include recommending policy for the development of the PRHSP; establishing priorities for activities; reviewing and commenting on the project’s progress; identifying other sources to support and assist the project in its future development plans; providing advice and support for data collection, monitoring, evaluation and public information.

The PRHSP staff presents and makes available to the Consortium the data analysis and research reports generated by the Title V Evaluation and Monitoring Section, including the annual Integrated Index of Maternal and Child Health by municipality. In addition, the HVNs and other regional personnel bring to the central Consortium meetings the input and recommendations they gather from the local Participant Committees and other contacts with pregnant and parenting women.

4. Taking part in consortia and committees is ingrained in the professional culture in PR. On the one hand, it allows professionals to contribute to our society, but another reason is that professionals perceive it as beneficial to their own professional development. Consortium members have demonstrated a remarkable commitment with the Consortium’s vision and mission. Membership has remained relatively constant. Some members have continued to participate after retiring from their jobs. This stability has fostered a climate of collaboration not only with the Consortium, but also among the members. The group has developed a great degree of cohesiveness, which has allowed the Consortium work plan to flow without major difficulties. The respect they command within the entities they represent and the expertise in key areas related to services directed at pregnant women and their children is very valuable for the Consortium.

In 2005, the Consortium created a Membership Directory, which helps members to keep in touch in between meetings.

- 5-6. These two questions will be addressed simultaneously, as they are intrinsically related. Involving community participants as regular members of the Consortium has been the greatest

challenge we've faced since the first Healthy Start funding cycle (1997-2001). Diverse attempts have been made by Home Visiting Nurses to promote their participation.

The process can be divided in three phases. In Phase One, HVNs invited participants to attend central Consortium meetings, but they obtained a scant response. A participant might attend one meeting, but would not return. Among reasons offered were lack of transportation, child care problems, and shyness. To overcome the first two, we offered reimbursement for transportation and childcare expenses, but there was no interest by participants to claim this aid.

In an attempt to build enthusiasm and interest in the Consortium, in April 2000 we held a Family Day for participants from the entire project area. It featured educational and recreational activities and the opportunity to receive participants' input and to present the benefits of being part of the Consortium. Their feedback was incorporated in the project plan for the following years, but we still did not succeed in having permanent consumer representation.

Phase Two, which began with the second funding cycle in 2001, focused on offering Consortium-sponsored educational activities at the local level, followed by a discussion to elicit information that was presented to the CC by regional staff. Attendance increased dramatically, as participants stated they felt more comfortable in meetings with people they know and in their own municipalities. However, we still did not achieve consumer representation in the Consortium.

A turnaround came in 2004 with the third phase, the development of Participants' Committees (PC) under the leadership of a new staff member, a clinical social worker. The change in nomenclature, from "consumer" to "participant" and from "consortium" to "committee" is culturally relevant. "Participant" connotes being an active player in the effort to solve their own needs in their community. The term "consortium" is associated in PR with municipal agencies that assist residents with job placement and other issues, which gave people an incorrect idea of what they could expect from our project. This name change has been one of the factors that made the groups more appealing and pertinent to our program participants. The PCs are composed of 8-15 community members along with the HVN, CHW or other MCH representative. At the first meeting of each PC, the PRHSP Social Worker presents the objectives of Healthy Start and the relationship with the Title V Home Visiting Program. She also gives an orientation about our services and the importance of participants' involvement in the PC. The ultimate purpose of the PC is that members can identify pressing needs and situations that affect maternal, child and family health in their community, and establish a work plan to seek solutions. The group meetings include an educational and a social component, within a non-threatening environment that allowed participants a chance to express their needs, opinions and bring the opportunity to participate in find a solution for their community problems. They are held once a month or every two months, depending of the group's wishes and availability.

The initial results obtained by the groups have been extremely positive. In December 2005 the PRHSP held a Participants' Encounter for all PC and CC members to recognize their involvement and successes in establishing the PCs. The event, which took place in a park, combined educational and recreational activities for participants and their children. Participants had the opportunity to share with families from other geographical areas of the Island.

We expect that from these groups, eventually a leader will emerge who will attend Consortium meetings as their representative and will voice their opinion and concerns.

7. We have used various strategies to get the input of our consumers. In first place, through the inclusion of community-based organizations (CBOs) that directly serve our target population. Their representatives bring to the table the views, concerns and interests of the women they serve. Second, by holding meetings with participants in the communities where they live. Home Visiting Nurses are regular members of the Consortium and serve to present participants' point of view and concerns during Consortium meetings, and in turn facilitate the communication between the Consortium and Participants Committees.
8. Consumer input has been used by project staff to modify project and educational activities. One activity participants have strongly supported is the "Comenzando Bien" Curriculum; therefore, a great deal of support has been provided to facilitators offering these courses. HVP participants have voiced an interest in obtaining information regarding the father's role in their children's upbringing. Therefore, in the 2003, 2004 and 2005 grant years, educational and motivational activities directed at strengthening the father's role in parenting have been celebrated throughout the island. The most recent, celebrated in January 2006, was a three-day residential retreat in a hotel on the west coast where 23 families (mothers, fathers and children) took part in a variety of educational and recreational activities geared at exploring fatherhood, parenting styles and other related issues. Educational materials have been developed and purchased on topics of interest to the HVP participants. However, their limited participation has not allowed them to have a significant impact in the decision-making process. To promote consumer participation, it is necessary to continue to develop the Participants' Committees.

#### **D. Additional Sustainability Elements:**

1. Although the project has been able to establish collaborative efforts with other agencies and private groups that represent in-kind contributions, no program income has been generated. Home Visiting Services are not billable under the Health Care Reform or any private insurance.
2. The fiscal reality of the Puerto Rico Healthy Start Project is different from that of other Healthy Start projects nationwide, as we are located within the Title V infrastructure. The majority of our staff is paid by the Title V grant, including all the Home Visiting Nurses and Community Health Workers. This staffing arrangement maximizes the available Healthy Start funds and allows them to be used to support the activities of the Home Visiting and Community Outreach programs, including training, educational materials and other activities that allow the regional to carry out their work more effectively. The project has been able to secure limited funds from March of Dimes to provide for the basic necessities associated with offering the "Comenzando Bien" Curriculum.
3. At the end of the first Healthy Start grant (1997-2001) the grant application submitted for the second cycle was "Approved but not funded." However, in spite of receiving no funds from Healthy Start, we were able to continue offering the core home visiting services. We were able to

use unexpended funds for a No-cost project extension, but most importantly the support of Title V meant that the salaries for the HVNs were not affected.

Subsequently, when the grant award was made for the reporting period, the annual grant amount was reduced from \$900,000 per annum in the first Healthy Start cycle to \$500,000 per annum. However, the project area and services expected of the PRHSP remained unchanged. In fact, the Outreach, Perinatal Depression and Interconceptional Health core services were added to our existing service models. Thanks to our administrative positioning within Title V, the PRHSP was able to fulfill all of its obligations. As has been explained, Title V covers all salaries for the corps of HVNs and CHWs, allowing HS funds to be used to support the Outreach and Case Management activities.

### III. PROJECT MANAGEMENT AND GOVERNANCE

- A. Both the Puerto Rico Title V program and the Healthy Start Project are administered by the Assistant Secretariat for Family Health and Integrated Services (ASFHIS), one of the largest secretariats of the Puerto Rico Department of Health (PRDH). The PRDH and its Division of Maternal, Child and Adolescent Health are the main entities responsible for overseeing the activities related to the Puerto Rico Healthy Start Project. During the reporting period, Dr. Roberto Varela-Flores was the director for both Puerto Rico Healthy Start and Title V, although he retired in December 2005. This arrangement provided an excellent framework for cooperation and sharing of available resources.

The PRHSP central-level management team that oversees the regional and local activities consists of a Project Director (10% FTE), and full-time Project Coordinator, Local Evaluator, Community Health Educator and Clinical Social Worker. A secretary paid by Title V was shared by the PRHSP and the PR Abstinence Education Program. The staffing for these positions was quite irregular over the reporting period, for reasons related to the uncertainty caused by the “Approved but not funded” status the PRHSP received in September 2001. This resulted in a temporary vacancy of the positions of Project Evaluator and Health Educator, as their contracts were not renewed when the first PRHSP grant period ended. For several months after the PRHSP was funded again in February 2002, the staff consisted only of the Project Director, Coordinator and Secretary.

Following is a description of the changes in staffing in the reporting period. Except for the Evaluator, who has a professional services contract, all others are either permanent or transitory employees.

**Project Director/Title V Director:** Dr. Roberto Varela-Flores held these positions until his retirement in December 2005. Dr. María del C. Rullán has been Acting Director since January 2006.

**Project Coordinator:** Dr. María del C. Rullán held the position from September 1997 until August 2003, when she became the Title V Programmatic Coordinator. She was replaced by Teresa Taboas, who has a master’s degree in Public Health Education and who had been the PRHSP Health Educator from December 1997 until 1999.

**Health Educator:** Lisa Carrillo held the position from August 2000 to December 2001, and again from February 2002 until February 2003. The gap in service came when the project was Approved but not funded in 2001. The current Health Educator, Yadira Tavales, has a bachelor’s in Community Health Education. She joined the PRHSP in December 2003.

**Evaluator:** The evaluator for the first grant cycle, Sixto Merced, was reassigned to a different project within Title V when the PRHSP was approved but not funded in 2001. It wasn’t until July 2002 that we were able to contract the services of Lillibet Febres, who has a master’s degree in evaluation.

**Social Worker:** Although the position was created in February 2004, the process of identifying and hiring an appropriately qualified Social Worker was long and difficult. Dixie Márquez, who has a master's degree in social work, joined the team in September 2004.

**Secretary:** The original PRHSP secretary left due to personal reasons in 2001. The secretary for the PR Prenatal Alcohol Screening Demonstration Project (1997-2001), whose salary was paid 100% by Title V funds, was then assigned to collaborate with the PRHSP. When the PRPASDP ended she became the full-time PRHSP secretary.

The PRHSP central office staff oversees the activities for the Home Visiting and Outreach programs and coordinate Consortium activities. The Regional MCH Director and the Regional Coordinators are responsible for the direct supervision of the HVNs and CHWs.

- B. Having the Puerto Rico Department of Health as our grantee gives us easy access to experts and resources in many areas. The PRDH provides us with administrative support in areas of contracts, budget, purchasing, payments to suppliers, and technology. Being within the PRDH allows us to access vital statistic information and the authority to convene key stakeholders to the PRHSP meetings and activities. In addition, the PRDH gives us credibility in the community and among professionals and agencies, thus facilitating collaborative relationships.
- C. There was little or no variation in the basic management and governance structure and functions during the project period, although there were changes in the staff assigned to specific positions.
- D. The request for funds set forth in the original grant proposal was based on the experience of the previous grant cycle, and adjusted for the decrease in the amount of the grant to \$500,000 per annum. The Healthy Start team analyzed the current and projected needs, population, staffing capacity and cost of materials and services in order to assign the available funds in the most cost-effective way possible. Among the changes done to the distribution were the following: elimination of funds for a mass media campaign; increase in the Local Travel line item to cover expenses for the HVNs; and a decrease in the monies destined for purchase of educational and promotional materials. This allowed for a more efficient utilization of the assigned funds.
- E. Since its inception, the Puerto Rico Healthy Start project has been supported with Title V resources to monitor quality assurance, program monitoring and service utilization. This includes the Title V Monitoring and Evaluation Section, which is in charge of carrying out various surveillance and research activities, such as a PRAMS-like survey, the Integrated Index of Maternal and Child Health and others. At the local level, staff paid by Title V (Regional Coordinators and Regional MCH Directors) perform the day-to-day supervision of the HVNs and CHWs, ensure quality and conduct monthly case reviews and annual performance audits. No external resources were funded or hired for these purposes.
- F. In Puerto Rico, cultural diversity is of a geographical or socioeconomic nature, more than racial or ethnic. There are no major cultural barriers among different sectors of the population. Services are culturally sensitive and linguistically appropriate. The HVNs and CHWs provide services in the community in which they live or in adjacent areas. Their cultural and linguistic characteristics are similar to the population they serve. Our Consortium has representation of all

geographic regions of the Island. However, due to the lack of regular participation by consumers in the Consortium meetings, it is representative of the population of providers, but not necessarily of consumers. That has begun to change in the latter part of the grant period as we established the Participants' Committees at the local community level (see Consortium section for a discussion).

#### IV. PROJECT ACCOMPLISHMENTS

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
<p><b>CPI 2.4.1.</b> By 12/31/05, increase to 80% the percent of 2 year olds who have received the full schedule of age-appropriate immunizations. (Baseline: The percentage of children with a complete immunization schedule during the 2002 immunization coverage study was 31%. This was a direct result of the shortage of DPT immunizations.)</p>	<p><b>Core Service: Case Management</b> Strategy: Provide home visiting services to participant families with children up to two years to monitor compliance with the immunization schedule.</p> <p>Activities: 1.1.1 Provide Home Visiting Services to eligible children up to two years of age in the project area.</p>	<p>The percentage of participating children under age 2 had received the full schedule of age-appropriate immunizations is as follows: 2003- 72.2% 2004- 79.9% 2005- 85.4%</p> <p>1.1.1 Completed</p>
	<p>1.1.2. Assess the immunization status of all participant infants and children up to two years of age to monitor compliance with the required immunization schedule.</p>	<p>1.1.2 HVNs assess the immunization status during the regularly scheduled home visits.</p>
	<p>1.1.3. Assess barriers participants face when attempting to comply with the immunization schedule and provide all the necessary referrals and follow up visits required to ensure this population gets them according to the PRDH schedule.</p>	<p>1.1.3 HVNs identify barriers during the home visits and refer to the regional director the findings.</p>
	<p><b>Core Service: Outreach</b> Strategy: Develop an aggressive and innovative outreach and recruitment program to identify children with incomplete immunization and refer for vaccination.</p>	

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	<p>Activities:</p> <p>1.2.1 Distribute educational materials regarding importance of timely immunizations in accordance with PRDH guidelines.</p> <p>1.2.2 Promote the MCH toll-free number during educational activities and in materials distributed to the population.</p>	<p>1.2.1. &amp; 1.2.2. Information is given one-on-one to participant families and through health fairs and educational activities at the community level. Each pamphlet includes the MCH toll free number.</p>
	<p><b>Core Service: Health Education</b> Strategy: Promote educational activities that reduce the prevalence of incomplete immunizations in children up to two years.</p> <p>Activities:</p> <p>1.3.1 Provide educational activities on immunizations directed at participants, particularly during the “Comenzando Bien” and Parenting courses.</p> <p>1.3.2 Provide information that will motivate mothers to comply with the immunization schedule during outreach activities.</p>	<p>1.3.1 &amp; 1.3.2 During the project period, 425 educational activities on this topic were offered with an attendance of 20,113 participants.</p>
<p><b>CPI 2.4.2</b> By 12/31/05, the proportion of pregnant HS participants who initiate prenatal care in the first trimester will be increased to at least 78%. (Baseline: 1,276 of 1,871 pregnant women participating in the PRHSP, or 68.2%, initiated prenatal care in the first trimester during FY 99-00. Source: Statistics from HVP of PRHS Project)</p>	<p><b>Core Service: Outreach</b> Strategy: Outreach and recruitment of pregnant women with no prenatal care.</p> <p>Activities:</p> <p>1.1.1 Develop outreach activities to identify and recruit pregnant women with no prenatal care into the program.</p> <p>1.1.2 Identify and engage community leaders to support outreach workers’ efforts to identify and recruit potential pregnant women with no prenatal care to the HVP so they may assist them in accessing prenatal care.</p>	<p>Between 2003-2005, 2,136 of 2,783 currently active pregnant participants (76.75%) initiated prenatal care in the first trimester.</p> <p>1.1.1 Between 2004 - 2005, 1,089 outreach activities were held.</p> <p>1.1.2 CHWs work in their community to establish and maintain these relationships. They continuously update the resource directory that is used by the CHW and the HVNs.</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	1.1.3 Enroll at least 50 high-risk pregnant women with no prenatal care in the HS HVP that are identified and enrolled by outreach workers in PR.	1.1.3 The CHWs identify women who are not receiving services, but not all can be enrolled into the HVP due to caseload limits. Those who are not admitted are referred to sources of care in the community.
	1.1.4 Develop promotional materials to advertise the program at the community level: flyers, posters, pamphlets, and promotional articles, etc.	1.1.4 The CHWs and HVNs use the promotional and educational materials provided by the PRHSP.
	1.1.5 Identify potential co-sponsors to continue disseminating the media campaign promoting early and regular prenatal care.	Eliminated.
	1.1.6 Promote the MCH toll-free information number in all activities where project staff participate and in incentives and educational materials distributed to the population.	1.1.6 Information is given one-on-one to participant families and through health fairs and educational activities at the community level. Incentives and educational materials include the MCH toll free number.
	<b>Core Service: Case Management</b> Provide home visiting services to pregnant women that support early and continuous prenatal care.	
	Activities: 1.2.1. Provide Home Visiting Services to eligible pregnant women in the project area.	1.2.1. During the project period, there were 62,855 active cases enrolled in the HVP.
	1.2.2. Assess the prenatal care status of all participant women and monitor their compliance with the required prenatal visits	1.2.2 HVNs assess compliance during the regularly scheduled home visits.
	1.2.3. Provide all the necessary referrals and follow up visits required to insure this population enters prenatal care as soon as possible and according to the current standards of care.	1.2.3 Between 2004-2005, 2,360 referrals were generated and 1,944 were completed (82.4%). It is important to note that these are active cases and the referrals may be in process.

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	1.2.4. Distribute educational materials regarding the importance of early and regular prenatal care in accordance with ACOG and PRDH guidelines.	1.2.4 Information is distributed one-on-one to participants and through health fairs and educational activities at the community level.
	<p><b>Local Perinatal Health Action Plan</b> Strategy: Promote and monitor compliance with public policy regarding early prenatal care Activities:</p> <p>1.3.1. Develop a public policy to enforce admission of pregnant women to prenatal care as soon as they request the service.</p>	1.3.1 Revised policy was signed by the Secretary of Health in September 2001.
	1.3.2. Disseminate and monitor compliance of the public policy established by the Department of Health and supported by ASES.	1.3.2 The public policy was issued to directors of health insurance companies for distribution to prenatal care providers.
	<p><b>Core Service: Health Education</b> Strategy: Provide information that will motivate women to seek early and adequate prenatal care Activities:</p> <p>1.4.1 Use regional newspapers and flyers to disseminate the importance of early and regular prenatal care.</p>	1.4.1 Regional personnel contribute articles to local newspapers. During the project period, 14 articles were published.
	1.4.2 Develop promotional materials to promote the program at the community level: flyers, posters, pamphlets, promotional articles, etc.	1.4.2 Educational materials are purchased or developed in house depending on our needs.
	1.4.3 Offer the “Comenzando Bien” prenatal curriculum in schools with high incidence of adolescent pregnancies, in collaboration with March of Dimes.	1.4.3. A total of 276 “Comenzando Bien” courses were offered with an attendance of 4,561 participants during the project period.

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	1.4.4 Develop and distribute educational materials regarding importance of early and regular prenatal care during home visits.	1.4.4 Information is given one-on-one to participant families and through health fairs and educational activities at the community level.
<p><b>CPI 2.4.3</b> By 12/31/05, the percent of Low Birth Weight (singleton) infants born to women who prenatally received PRHSP services will be reduced to no more than 10%. (Baseline: 276 of 1,697 infants born to women who prenatally received PRHSP services, or 12.7%, were Low Birth Weight)</p>	<p><b>Core Service: Health Education</b> Strategy: Promote educational activities that reduce the prevalence of contributing factors for LBW babies.</p> <p>Activities:</p> <p>3.1.1. Distribute materials that promote healthy lifestyles, early and regular prenatal care in accordance to established guidelines and the HVP program at the community level: flyers, posters, pamphlets, promotional articles, etc.</p>	<p>During the project period, 301 of 2,162 infants born to women who prenatally received PRHSP services (13.9%) were LBW.</p> <p>3.1.1. Information is given one-on-one to participant families and through health fairs and educational activities at the community level.</p>
	3.1.2. Identify potential co-sponsors to continue the early prenatal care mass media campaign.	3.1.2. Eliminated
	3.1.3. Offer the March of Dimes (MOD) “Comenzando Bien” prenatal curriculum in schools with high incidence of adolescent pregnancies. Encourage those in attendance to comply with their prenatal care schedule and to adopt healthy lifestyles.	3.1.3 A total of 276 “Comenzando Bien” courses were offered with an attendance of 4,561 participants during the project period. During 2005 Mayagüez region was awarded a MOD community incentive grant.
	3.1.4 Promote the MCH toll-free information number and adequate PNC during educational activities and in materials distributed to the MCH population.	3.1.4 Information is given one-on-one to participant families and through health fairs and educational activities at the community level.
	3.1.5 Provide education regarding signs and symptoms of preterm delivery, both orally and in written form.	3.1.5 Completed. A total of 55,000 magnetic boards illustrating the signs of preterm labor was distributed to HVP participants, OB/GYNs office and in the community.

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	3.1.6. Advise women regarding the adequate weight gain expected during the pregnancy based on pregravid BMI.	3.1.6 Completed. Individual education is offered during home visits to each HVP participants.
	3.1.7. Conduct a smoking cessation program for pregnant women	3.1.7 Completed. HVNs were trained and materials were developed to carry out the cessation interventions.
	<p><b>Core service: Outreach</b> Strategy: Hold outreach activities to identify and recruit pregnant women at high risk of having low birth weight infants. Activities: See Activities 3.1.1 3.1.4 3.1.5 3.1.6</p>	
	3.2.1 Identify and recruit women who smoke, drink, use illegal drugs, are victims of domestic violence or suffer from perinatal depression and provide them with referrals to the HVP.	3.2.1 The CHWs identify women who are not receiving services, but not all can be enrolled into the HVP due to caseload limits. Those who are not admitted are referred to sources of care in the community.
	<p><b>Core Service: Case Management</b> Strategy: Provide case management and care coordination services to women considered to be at high risk to have a LBW infant. Activities: See Activities 3.1.3, 3.1.5, 3.1.7</p>	

<b>PROJECT PERIOD OBJECTIVE</b>	<b>STRATEGIES AND ACTIVITIES</b>	<b>PROGRESS</b>
	<p>3.3.1. Ensure that all participants are enrolled early in the WIC Program.</p> <p>3.3.2. Offer family planning and interconceptional counseling during follow up participant infant visits.</p> <p>3.3.3 Screen all women enrolled in the HVP for factors that contribute to low birth weight and intervene to reduce or eliminate them.</p> <p>3.3.4 Identify women who smoke, drink, use illegal drugs, are victims of domestic violence or suffer from perinatal depression and provide interventions according to the level of risk.</p> <p>3.3.5 Provide the necessary referrals and monitor their attendance during follow up visits</p> <p>3.3.6 Distribute educational materials regarding importance of early and regular prenatal care that complies with established guidelines for prenatal care during the home visit</p> <p>3.3.7 Advise women of the adequate weight gain expected for them during this pregnancy based on pregravid BMI.</p>	<p>3.3.1–3.3.7 The HVN assesses each participant’s needs and develops an action plan to address the identified needs through referrals to services available in the community. One-on-one education and follow up are provided at each home visit and in between visits as needed to ensure that referrals are completed and compliance with the HVNs recommendations. Between 2004-2005, 2,947 active pregnant participants enrolled in the HVP.</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	<p><b>Local Perinatal Health Action Plan</b> Strategy: Public Policy</p> <p>Activities: 3.4.1 Develop a public policy to enforce that services are provided on an emergency/top priority basis to pregnant women referred for treatment due to smoking, drinking, illegal drug use, domestic violence or perinatal depression.</p>	<p>3.4.1 No further progress on this activity with the state Mental Health agency (ASSMCA). HVNs assist participants in accessing the services they need. The PRHSP Social Worker provides technical assistance to HVNs to manage these cases. She offered trainings in Domestic Violence and Depression Management. She also participates in service coordination for participants with particular needs.</p>
<p><b>CPI 2.4.4</b> By 12/31/05, the percent of Very Low Birth Weight (singleton) infants born to women who prenatally received PRHSP services will be reduced to no more than 1.2%. (Baseline: 26 of 1,697 infants born to women who prenatally received PRHSP services 1.5% were Very Low Birth Weight during FY 1999-2000. Source: Statistic from HVP of PRHS Project).</p>	<p><b>Core Services: Case Management, Outreach, Health Education, Local Perinatal Health Action Plan</b> Strategies: All the strategies considered in previous objectives would also contribute to the achievement of this objective.</p> <p>Activities: All the activities considered in previous objectives would also lead to the achievement of this objective.</p>	<p>Between 2003-2005, 43 of 2,612 infants born to women who prenatally received PRHSP services (1.6%) were Very Low Birth Weight.</p> <p>Refer to previous objectives.</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
<p><b>CPI 2.4.5.</b> By 12/31/05, the percent of Preterm (singleton) infants born to women who prenatally received PRHSP services will be reduced to no more than 10%. (Baseline: 193 of 1,697 infants born to women who prenatally received PRHSP services, or 11.4%, were preterm).</p>	<p><b>Core Services: Case Management, Outreach, Health Education, Local Perinatal Health Action Plan</b> Strategies: All the strategies considered in the previous objective would also lead to the achievement of this objective.</p> <p>Activities: All the activities considered in previous objectives would also lead to the achievement of this objective.</p>	<p>Between 2003-2005, 328 of 2,612 infants born to women who prenatally received PRHSP services, or 12.5%, were preterm.</p>
	<p>5.1.1 Distribute educational materials regarding importance of early and regular prenatal care that complies with established guidelines for prenatal care during the home visit.</p> <p>5.1.2 Distribute educational materials regarding importance of oral health.</p>	<p>5.1.1 &amp; 5.1.2 Information (oral and written) is given one-on-one to participant families and through health fairs and educational activities at the community level.</p>
	<p>5.1.3. Refer pregnant participants to receive oral health services covered by the government health insurance and verify attendance.</p>	<p>5.1.3 HVNs educate participants regarding the importance of oral hygiene during pregnancy. During the project period, we sponsored nine educational activities for prenatal and dental providers regarding oral health and prematurely with an attendance of 673 participants which includes MDs, DDSs, RNs and Dental Assistants.</p>
<p><b>CPI 2.4.6.</b> By 12/31/05, the percentage of consumer participation in the work/activities of the Consortium will reach 10%.</p>	<p>Strategy: Hold educational and social events with participants in their communities directed at identifying and developing leaders who can take part in Consortium meetings.</p> <p>Activities: 18.1.1. Continue the efforts already started to identify and recruit</p>	<p>As of December 2005 we have no regular consumer participation in the Central Consortium. Other consumer input is obtained through Consortium-sponsored activities at the local and regional levels.</p> <p>18.1.1. &amp; 18.1.2 The Bayamón and Metropolitan Health</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	<p>consumers willing to participate in the Consortium. 18.1.2 Develop Consumer Consortium Groups at municipal levels.</p>	<p>Regions developed pilot Participants' Committees (PCs). The model was replicated in the remaining Health Regions, developing eight PCs at the end of 2005. Each PCs maintains an average of 10 participants per meeting.</p>
	<p>18.1.3 Obtain direct consumer participant input through informal question and answer sessions to be included as part of the local activities. 18.1.4 Organize family oriented activities that promote family relationships in an environment directed at promoting health education and promotion messages.</p>	<p>18.1.3 &amp; 18.1.4 During the project period, 199 activities have been sponsored by the Consortium with an attendance of 5,549 participants.</p>
<p><b>CPI 2.4.7.</b> By 12/31/05, the percentage of completed referrals among case-managed PRHSP participants will be increased to at least 80%. (Baseline: 543 of 993 pregnant participating PRHSP Project, or 57.7%, completed referrals during FY 1999-2000. Source: Statistics from HVP of PRHS Project)</p>	<p><b>Core Service: Case Management</b> Strategy: Home Visiting Nurses identify participants' needs, provide the necessary referrals and monitor completion of the referrals with the assistance of the Community Health Workers (case management and care coordination).</p> <p>Activities: 14.1.1. Provide Home Visiting Services to eligible participants in the project area. 14.1.2. Conduct a comprehensive assessment aimed at identifying health, mental and social needs in all PRHSP participants. 14.1.3. Identify the participant family's needs and develop the action plan to resolve them alongside the family according to their priorities.</p>	<p>Between 2003-2005, 2,360 referrals were generated and 82.4% of these were completed.</p> <p>14.1.1 Between 2004-2005, there were 16,476 active cases enrolled and discharged in the HVP. 14.1.2 &amp; 14.1.3 During the home visits, the HVN perform the assessment and discuss the findings with the participant in order to design the action plan. In some cases they refer the participant to Regional Social Worker and in major situations to the PRHSP Clinical Social Worker.</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	<p>14.1.4 After performing the needs assessment, link the target population to the needed services via referrals and services coordination.</p> <p>14.1.5. Monitor and follow-up whether services for which referrals were made have been provided.</p> <p>14.1.6 Provide referrals to primary health care providers for postpartum follow-up visit, contraceptive and family planning services, pediatric care, immunizations and others as needed.</p>	<p>14.1.4, 14.1.5 &amp; 14.1.6 Between 2003-2005, 2,360 referrals were generated and 82.4% of these were completed. It is important to note that these are still active cases and the referrals are in process.</p>
	<p>14.1.7. Make the necessary coordination required to ensure family planning methods are accessible and provided free of charge for the HVP participants.</p>	<p>14.1.7 HVNs and CHWs maintain links with pharmacies in the community that distribute contraceptives purchased by Title V for GIP participants.</p>
	<p>14.1.8. Improve the tracking mechanisms to ensure that participants received the service requested. Provide feedback to those that refer to the HVP and demand feedback from agencies to which referrals were generated</p>	<p>14.1.8 At each home visit, the HVN ascertains completion of each referral and notes it in the record.</p>
	<p>14.1.9. Update the inventory of resources at the community level every 12 months.</p>	<p>14.1.9 This is done by the CHW.</p>
	<p>14.1.10. Develop formal and informal agreements among programs and agencies that serve the same target population.</p>	<p>14.1.10 Done by the CHWs and HVNs at the local level, and by project staff at the regional and agency level.</p>
	<p><b>Core Service: Outreach</b> Strategy: CHWs assist the HVNs in monitoring completion of the referrals generated by them.</p> <p>Activities: 14.2.1 Provide follow up home visits to hard to reach participants of the HVP</p>	<p>14.2.1 Between 2004-2005, the CHWs made 8,492 contacts with HVP participants.</p>
	<p>14.2.2 Provide follow up visits to</p>	<p>14.2.2 Between 2004-2005, the</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	agencies and community organizations regarding referrals made for HVP clients.	CHWs made 31,930 contacts with agencies.
<p><b>CPI 2.4.8.</b> By 12/31/05, the percentage of completed referrals among case-managed HS infants with special health care needs will be increased to at least 80%. (Baseline: 198 of 336 children with special health care needs participating PRHSP Project, or 58.9%, completed referrals during FY 1999-2000. Source: Statistic from HVP)</p>	<p><b>Core Services: Outreach, Case Management</b> Strategies: All the strategies considered in the previous objective will also lead to the achievement of this objective.</p> <p>Activities: All the activities considered in the previous objective will also lead to the achievement of this objective.</p>	<p>Between 2003-2005, of 1,119 referrals generated to CSHCNs, 1,031 (92.1 %) were completed.</p> <p>Please refer to reported progress noted above.</p>
<p><b>CPI 2.4.9.</b> By 12/31/05 the percent of HS participants who receive interconceptional services will be 90%. (Baseline: Interconceptional services for a period of two years have not been a formally reported service component for the PRHSP in previous years. No baseline data are available at this time)</p>	<p><b>Core Service: Case Management</b> Strategy: Provide home visiting services regarding interconceptional care to women after the birth of their child.</p> <p>Activities: 8.1.1 Provide Home Visiting Services to eligible women during a two-year postpartum period. 8.1.2 Assess the interconceptional care needs of HVP participants for a two-year period and provide appropriate interventions to extend the interconceptional period to a minimum of two years.</p>	<p>Between 2003-2005 the percentage of participants who received interconceptional services is as follows: 2003 – 76.1% 2004 – 72.6% 2005 – 100%</p> <p>8.1.1 HVNs provide services to women during two years postpartum period.</p> <p>8.1.2 Completed.</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	8.1.3 Provide all the necessary referrals and follow up visits required to ensure participants have a postpartum visit and family planning counseling to promote a two-year interconceptional period.	8.1.3 Completed.
	8.1.4 Distribute educational materials regarding the importance of spacing pregnancies.	8.1.4 Completed. This information was given one-on-one communication to participants and community by HVNs and CHWs during home visits, educational activities and health fairs.
	8.1.5 Identify and coordinate efforts directed at eliminating barriers participants face in obtaining family planning services.	8.1.5 HVNs identify barriers during their visits and refer them to the supervisory staff at the regional level, which can deal with the concerned entity directly, or refer the problem to the Central level. At the regional levels, the SSDI Regional Working Groups congregate representatives of public and private agencies and serve as forum to discuss and find solutions to access problems. At the Central level, the Consortium serves the same purpose.
	8.1.6 Provide contraceptive methods free of charge to HVP participants.	8.1.6 Completed. (through Government Insurance Plan)
	<p><b>Core Service: Health Education</b> Strategy: Promote educational activities that increase the interconceptional period among participants.</p> <p>Activities: 8.2.6. Provide training activities to HVNs and CHWs on family planning and preconceptional health issues.</p>	8.2.6 Completed. During the project period HVNs and CHWs received trainings that include these topics.
	8.2.7 Distribute educational	8.2.7 Completed. This

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	materials regarding importance of pregnancy spacing.	information was given one-on-one communication to participants and community by HVNs and CHWs during home visits, educational activities and health fairs.
<p><b>CPI 2.4.10.</b> By 12/31/05, the percent of clients receiving HS funded health education in smoking cessation who self-report lowered frequency or elimination of this risk behavior will be 70% (Baseline: 84 pregnant participants out of the 136 pregnant participants who smoked [62%] ceased to do so)</p>	<p><b>Core Service: Case Management</b> Strategy: Provide home visiting services to pregnant women participating in the HVP with appropriate smoking cessation intervention according to the stage they are in the smoking cessation process.</p> <p>Activities: 7.1.1 Provide Home Visiting Services to eligible pregnant women who smoke in the project area.</p>	7.1.1 Completed. HVNs screen all participants enrolled in the HVP.
	7.1.2 Assess the smoking status of pregnant women in the HVP and provide appropriate interventions that can support women in their smoking cessation efforts.	7.1.2 Completed. HVNs screen all participants enrolled in the HVP. Also they use “Mi Gran Decisión”, a diary designed to enhance the decision of smoking cessation efforts.
	7.1.3 Provide all the necessary referrals and follow up visits required to ensure this population gets the required smoking cessation interventions.	7.1.3 Completed. Each woman identified as smoker works hand-on-hand with the HVNs to design a smoking cessation plan. The HVNs complete necessary referrals and continue providing follow up visits as needed.
	7.1.4 Distribute educational materials regarding importance of living in a smoke-free environment.	7.1.4 Completed. Information was given one-on-one communication during home visits.

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	<p><b>Core Service: Health Education</b> Strategy: Educational activities that promote a reduction in the prevalence of smoking in all members of the family.</p> <p>Activities: 7.2.1 Provide additional training on smoking cessation to the Home Visiting Nurses 7.2.2. Distribute educational materials regarding importance of living in a smoke free environment.</p>	<p>7.2.1 Completed. HVNs received a training to perform the screening and to use ‘Mi Gran Decisión’ diary with the smoking pregnant participants. 7.2.2 Completed. HVNs and CHWs provide the information during home visits, educational activities and health fairs.</p>
<p><b>CPI 2.4.11.</b> By 12/31/05, 15% of clients receiving HS funded health education/treatment in substance abuse will self-report lowered frequency or elimination of this risk behavior. (Baseline: Substance abuse screening has not been part of the routine in the PRHSP interventions up to 2002. No baseline data are available at this time.)</p>	<p><b>Core Service: Case Management</b> Strategy: Provide home visiting services to pregnant women participating in the HVP with appropriate substance abuse intervention once they have a positive screen</p> <p>Activities: 12.1.1 Provide Home Visiting Services to eligible pregnant women in the project area.</p>	<p>At present, we screen for substance use during pregnancy and refer for treatment.</p> <p>12.1.1 Completed. Due to the limitations of case load women that can’t be enrolled to HVP were refer to providers in the community.</p>
	<p>12.1.2 Assess participants’ substance abuse status and provide appropriate referrals for further evaluation and treatment.</p>	<p>12.1.2 Completed. HVNs assess participants and refer to providers in the community.</p>
	<p>12.1.3 Provide all the necessary follow up visits required to ensure this population gets the required substance abuse interventions they require.</p>	<p>12.1.3 Completed. HVNs provide home visiting services as scheduled.</p>

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	12.1.4 Distribute educational materials regarding the importance of healthy lifestyles free of substance abuse.	12.1.4 Completed. Information was given one-on-one communication to the participants during home visits performed and during educational activities and health fairs to the community.
	<p><b>Core Service Outreach</b> Strategy: Develop an aggressive and innovative outreach and recruitment program to identify pregnant women suspected of substance abuse and refer them to the HVP.</p> <p>Activities: 12.2.1 Conduct a broad array of outreach and recruitment activities aimed at identifying substance abusing pregnant women and referring them to the HVP and for further evaluation and treatment.</p>	12.2.1 All outreach an educational activities are used to search for women who may be using substances.
	12.2.2 Distribute educational materials regarding the adverse effects of substance abuse in the developing fetus and the pregnant women during activities held in the community.	12.2.2 Completed. Information was given one-on-one communication to the participants during home visits performed and during educational activities and health fairs to the community.
	12.2.3 Promote the MCH toll-free number during educational activities and in materials distributed to the population.	12.2.3 Completed. All educational materials include the new MCH toll free number.
	<p><b>Core Service: Health Education</b> Strategy: Promote educational activities that reduce the prevalence of substance abuse in all members of the family.</p> <p>Activities: 12.3.1 Provide additional educational activities to HVN on substance abuse screening and adequate referral.</p>	12.3.1. Completed. Please refer to 12.1.2

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	12.3.2 Distribute educational materials regarding importance of living healthy lifestyles.	12.3.2 Completed. Information was given one-on-one communication to the participants during home visits performed and during educational activities and health fairs to the community.
<p><b>CPI 2.1.15.</b> By 12/31/05, the percent of women screened for depression will be 90%. (Baseline: Postpartum depression screening has not been part of the routine in the PRHSP interventions up to 2002. No baseline data are available at this time.)</p>	<p><b>Core Service: Case Management</b> Strategy: Screen women participating in the HVP for perinatal depression and refer for assessment and treatment as needed.</p> <p>Activities: 13.1.1 Select an appropriate perinatal depression screening tool culturally appropriate for our participants</p>	<p>Between 2003-2005, 4,691 active participants were screened for postpartum depression</p> <p>13.1.1 Completed (Edinburgh Postnatal Depression Scale)</p>
	13.1.2 Establish a protocol for appropriate management of those that screen positive.	13.1.2 Completed. HVNs are aware of the protocol to follow.
	13.1.3 Provide Home Visiting Services to eligible pregnant women in the project area.	13.1.3 Completed.
	13.1.4 Screen participants for the presence of perinatal depression and provide appropriate referrals for further evaluation and treatment.	13.1.4 Completed
	13.1.5 Provide all the necessary referrals and follow up visits required to insure those that screen positive received the mental health services needed.	13.1.5 Completed.
	13.1.6 Distribute educational materials regarding perinatal depression.	13.1.6 Culturally and linguistically appropriate materials were developed by Social Worker.

PROJECT PERIOD OBJECTIVE	STRATEGIES AND ACTIVITIES	PROGRESS
	<p><b>Core Service: Health Education</b> Strategy: Promote educational activities that help women and HVN identify signs and symptoms of depression.</p> <p>Activities: 13.2.1 Provide training sessions on perinatal depression and the appropriate use of the Edinburgh Screening Tool to the HVN.</p>	<p>13.2.1 Completed. A formal training was provided to the HVNs in 2002 and in-service training during 2005.</p>
	<p>13.2.2 Distribute educational materials directed at increasing awareness of signs and symptoms associated with perinatal depression in women during the perinatal period.</p>	<p>13.2.2 Completed. Information was given one-on-one communication to the participants during home visits performed and during educational activities and health fairs to the community.</p>

B. The PRHSP did not receive or provide technical assistance during the project period.

## **V. PROJECT IMPACT**

### **A. Systems of Care:**

1. The needs of the MCH population are multiple and complex. Because of this, there is no single public or private agency, program, or community based organization that can satisfy all the needs of the most vulnerable population comprised of women in their reproductive age, children and adolescents. It is therefore imperative to establish appropriate coordination mechanisms among all concerned entities in order to reduce duplication and fragmentation of services and to be more efficient in the utilization of the scarce resources available.

The Consortium has provided opportunities to coordinate and develop collaborative initiatives among various partners who interact with pregnant and parenting women in the project area. Through various Consortium development and training activities, members have networked and established collaborative efforts among themselves and with the PRHSP. The collaboration efforts with March of Dimes and Early Head Start allowed us to establish and maintain the Comenzando Bien Initiative.

2. During the project period, we have maintained the Memorandum of Agreement that was developed under the first Healthy Start grant among WIC, Medicaid and the PRDH to facilitate care for our participants. In addition, Title V staff was instrumental in provoking changes at the administrative level for the presumptive eligibility of pregnant women at the Medical Assistance Office and enabling families to keep their HCR coverage even if a pregnant minor had to leave the family group to acquire her own insurance card.

Within the PRDH, we have established informal collaboration agreements with other dependencies, particularly the Auxiliary Secretariat for Health Promotion, the Division of Habilitative Services and its local Early Intervention Clinics, and the Immunization Program. We share resources, materials, and carry out joint prevention and education activities.

At the local level, the HVNs and CHWs develop and maintain informal collaboration linkages with various providers and agencies in the community, including the local Mayor's office and other municipal dependencies, to facilitate access to services needed by our participants. This is done on an as-needed basis and varies from locale to locale.

- 3.a. The most significant collaboration efforts between the PRHSP and other public and private entities include:

March of Dimes: Through our joint efforts, we have trained most of the Community Health Workers and some of the regional and central-level Health Educators as facilitators in the MOD "Comenzando Bien" comprehensive prenatal curriculum. The courses are held in schools and communities. Most of the attendees are not HVP participants, and Comenzando Bien can be one of the few sources of information available to them. Many of the participants are teens. One of the main difficulties in providing the courses was the need to provide participants with a nutritional snack during the eight two-hour sessions that comprise the curriculum. March of Dimes has given the PRDH mini-grants through its Community Incentives Program to fund the

courses. In turn, we take part in the Program Committee for the local chapter of March of Dimes and participate in all events sponsored by them, such as the Prematurity Awareness Day, WalkAmerica and others.

**Early Head Start:** A representative of EHS is on the PRHSP Consortium. This program works closely with the Puerto Rico Healthy Start Project. We have shared with them trainings such as “Comenzando Bien,” which was sponsored by Healthy Start, and the Doulas training sponsored by Early Head Start. As a result of attending this training and contacts made during the training we were able to refer one of our HVP pregnant teens to receive the services of a Doula. A representative from Early Head Start has been an active partner in our Consortium. We have shared both human and material resources with them. One of the annual Consortium meetings was held in their facilities at no cost to Healthy Start. Through their joint participation in the HS Consortium, MOD and EHS have developed collaborative efforts among themselves.

**PROFAMILIA:** This community-based organization has been our partner in developing and conducting training for the HVN and CHW in the earlier years of the PRHSP. The Educational Services Director continues to be a member of our Consortium. PROFAMILIA’s expertise in family planning, HIV prevention and community education has been an asset for the Consortium.

**Medical Sciences Campus, University of Puerto Rico:** The Continuing Education Division has been entrusted with the continuing education activities for our staff and for providers in the community.

**VOCARE, Inc.:** This CBO is dedicated to promoting healthy family relationships. They offered the Fatherhood Retreat in January 2006, and its president is a member of our Consortium.

**American Academy of Pediatrics:** As members of our Consortium, the APA has given us valuable professional advice, particularly in the area of breastfeeding.

**PREEMIES:** This program was established by the NICU staff of the Pediatric University Hospital, the largest supratertiary facility in PR. It provides educational, emotional, limited care coordination and supportive care for parents of infants born weighing less than 1.5 kilograms. Once these babies are discharged from the hospital, they are referred for follow up by our Home Visiting Nurses.

- 3.b. The March of Dimes “Comenzando Bien” prenatal curriculum is offered to consumers in the community. Through the sessions participants are empowered to become actively involved in their prenatal care and in other issues that directly or indirectly affect their personal health or their families. The Participants’ Committees are also giving fruit in this area, as the consumers are learning effective ways to address their needs with the various service providers, public or private, and look for satisfactory solutions.
4. a. The MCH Division received a March of Dimes grant to establish the “Comienzo Saludable” (Healthy Beginnings) project, aimed at reducing age-related disparities in early prenatal care. As part of the efforts, a protocol was developed to establish the procedures to be followed when an

adolescent suspects she is pregnant. This protocol eliminates the need for parents to be notified or to consent to serological testing to confirm a pregnancy.

4. b. The “Comienzo Saludable” project contributed to decreasing the barriers teens face when they attempt to enter prenatal care. Since having a positive serological test is a requirement for enrollment in Medicaid, making the test more easily accessible eliminated one of the main hurdles. Medicaid offices have also been instructed to enroll teens on the same day they request services.
4. c. Care coordination is one of the main roles the PRDH has adopted as a strategy to fulfill its public health role of health assurance and quality of care. This service model is a key component of the PRHSP. Our staff constantly monitors compliance with established guidelines and standards of care. Our HVP services link and coordinate with similar services being provided by health care insurance companies, public agencies and other CBOs.
4. d. Although there have been efforts by the PRDH to link data across providers, no significant progress has been made. Sharing data with providers has been one of our greatest challenges so far. The HIPAA regulation and lack of uniformity in data collection forms are some of the most important reasons for this.
5. The PRHSP does not provide clinical services; therefore, this question will be addressed in the context of the HVN as provider of services to our consumers. A client satisfaction survey carried out from March to July 2005 revealed our HVP is well received and is fulfilling our participants’ expectations. A self-administered questionnaire is given to participants when they are discharged from the HVN at the end of their interconceptional period. Ninety percent (90%) of those surveyed reported the HVN had helped her manage her problems and the same number felt they had been actively involved in the process. Ninety five percent (95%) were satisfied with the time devoted to the visits and with their frequency. An even larger percentage (97.5%) felt the HVN had treated them in a very professional and courteous manner. They also felt the HVNs were very knowledgeable in the topics discussed and capable of answering the questions related to the health of the family. Finally, 92.5% reported services were excellent and effective in helping them resolve their health related problems.

The participants’ input regarding the services received is also collected by means of the Participants’ Committees, in the Participants’ Encounters, and through the home visits. Their recommendations and feedback are taken into account when services and staff are evaluated, as well as when new program components are under consideration.

## **B. Impact to the Community:**

1. One of the responsibilities of the Community Health Workers is to gather information regarding private and public agencies and services available to the community. They use this information to develop and maintain a comprehensive directory of services which they share with the HVNs.

The HVNs use this directory to inform participants regarding the available services and how to access them. At the same time, the CHWs also disseminate this information through outreach and educational activities with community groups. This enables the non-HVP population to have the information on how to access the services they need.

2. Our administrative structure within the PR Department of Health curtails the ability of consumers to exert direct influence in regards to standards and policies. However, the input from the consumers that is gathered through the HVNs, the regional staff reports to the central Consortium and the newly established Participants' Committees enable their voices to be heard. Through this feedback mechanism various needs and barriers have been identified. This information has been used by MCH staff to effect changes at the systemic level. One salient example was a change in the certification procedures by the Medical Assistance Office (Medicaid) whereby pregnant women are granted presumptive eligibility while they are able to obtain the required pregnancy blood test. Another important change is that when a minor becomes pregnant and has to get her own Government Insurance Plan coverage, her family would often lose eligibility for the GIP upon losing one member. When presented with this information, the Medical Assistance Office agreed to grant the coverage to the minor without affecting the family unit. At the local levels, when HVNs and CHWs learned from their participants of long delays in obtaining prenatal care, many of them have been able to establish informal agreements with providers to give priority to HVP participants.
3. The Participants' Committees have proven to be a means for the HVP participants to identify their needs and most importantly, to seek possible solutions or alternatives for them. The Participants' Committee in Aguadilla, a town on the northwest corner of the island, had a problem with trash collection. They had complained among themselves, but had not taken the initiative to put in a formal complaint with the municipality. Once they started meeting as a group, they identified this as the problem they wanted to tackle and with the guidance of the HVN decided on the steps the needed to take. A group of the residents met with the Sanitation Department of the mayor's office and lodged the complaint in a positive, constructive way. As a result, the trash is now being collected regularly. Another situation that frequently comes up in PCs is the difficulty in accessing services under the HCR. In response to this, the Patient's Advocate Office has offered orientation sessions to inform participants of their rights and responsibilities, and particularly how to file complaints for curtailment of services.

Three multi-region events were held for participants. The first Participant Encounter was held in December 2002. A second large gathering, this time for members of the various Participants' Committees was held in December 2005. A three-day residential workshop for 23 families (mothers, fathers and children) was held in January 2006. Although each of these activities had a specific educational focus, they shared an element of bringing together participants from diverse health regions and giving them the opportunity to interact with persons from distant towns. Given the extent of our project area, it is not easy for our participants to meet on a regular basis.

4. Job creation is outside the scope of the PRHSP and not feasible given the nature of our intervention model and the extension of our project area.

**C. Impact on the State:**

The MCH Division houses both the Healthy Start Project and Title V. Both share the same Director. The HVN and CHW are paid with Title V funds. PRHSP staff includes Project Coordinator, Health Educator, Evaluator and Social Worker. PRHSP and CSHCN belong to the same Auxiliary Secretariat. This enables us to share resources and to hold joint activities. Medicaid and SCHIP have been our long time collaborators leading to mutual referrals for services. We have established an agreement that eliminates one of the main barriers for teens to access prenatal care.

**D. Local Government Role:**

Local (municipal) governments have increasingly recognized the value of having the PRHSP in their municipalities. We have been able to share with them our MCH and participants' data and needs. In many municipalities, they have granted us use of their public facilities, office space and telephone access when requested. The Municipality of San Juan (MSJ) has a special relationship with the PRHSP since the Capital Health Department is an independent entity from the PRDH. For many years, Title V contracted with them for the Home Visiting services. However, since 2005 we have changed the modality to a collaborative agreement, where Title V funds the HVNs' salaries, expenses and some educational materials, while the MSJ provides office space, some supervisory personnel and materials. All in-service training activities are offered to the staff assigned to the MSJ, and they must follow the same HVP manual, standards and procedures. This situation is equally beneficial for both parties.

**E. Lessons Learned:**

The most salient lessons of the past four years include:

- a. It is imperative to establish and maintain collaborative alliances with other private and public agencies and providers in the community. The effort of caring for the MCH population is too complex and multifactorial for one entity.
- b. The relationship between Title V and the PRHSP has been a critical element in the design, implementation, management, evaluation and sustainability of the PRHSP.
- c. Even within a population that is fairly homogeneous in its ethnic and social composition, there are regional, cultural and geographic differences that must be taken into account when designing and providing services. The standards of care and intervention protocols must be flexible enough to allow regional personnel to make modifications while still maintaining uniformity in the basic structure of services.
- c. Despite provision of similar services throughout the island over the course of the reporting period, disparities in infant mortality exist between the northern and southern part of the Island. We believe this may be due to the impact of socioeconomic factors, distribution of health care facilities and access to medical care. Therefore, targeted efforts must be directed at this geographical area to identify contributing factors to the higher IMR and addressing them appropriately. The project area for the PRHSP for the third grant cycle (2006-2010) has

been limited to those municipalities that together show an IMR that is 13.3% higher than the average for the entire Island.

## **VI. LOCAL EVALUATION**

### HEALTHY START LOCAL EVALUATION REPORT

PROJECT NAME: Puerto Rico Healthy Start Eliminating Disparities Project

TITLE OF REPORT: Evaluation of the Puerto Rico Healthy Start Project, 2001-2006

AUTHOR: Lilibet Febres, MS

#### **SECTION I: INTRODUCTION**

##### Local Evaluation Component

The efforts of this project are focused on the Case Management/Care Coordination (including Perinatal Depression Screening and Interconceptional Care), Outreach and Health Education activities. The evaluation uses multiple approach methods that include the profile of the population served (Participant Characteristics); the measure of the adequacy of services rendered by the Case Management/Care Coordination core service (Service Provision); and the impact of the Healthy Start Project on the population (Performance Measures).

The evaluation design for the population profile and the service provision assessment is a retrospective analysis of participants' records at the end of the intervention. The population profile describes the socio-economic, demographic and health characteristics, and the utilization of perinatal health care for each pregnant, interconceptional and pediatric participant.

The service provision evaluation will measure the adequacy of the services provided according to the established HVP Procedures Manual. Data collection tools designed by the program assess the aspects to be evaluated, such as the case load, the number of home visits, the number and type of orientation/education activities according to the participant's risk level registered, and the adequacy of the referral services provided.

The local evaluator, Lilibet Febres, is retained by the PRDH under a professional services contract, since there are no regular positions for evaluators in the PRDH's Human Resources system. However, for practical purposes she is considered as part of the staff of the PRHSP and not as an outside contractor. Additional consulting and support for evaluation activities, including data entry, is given by the Title V Monitoring and Evaluation Section.

The basic evaluation design was developed during the first Healthy Start grant (1997-2001). Since then, it has undergone only minor modifications, as it has continued to be adequate and useful for our evaluation purposes. A formative evaluation design is employed to monitor project activities (longitudinal status) for the implementation of the outreach and education component. Measures for monitoring the extent to which activities are accomplished are taken during the fiscal year. In addition, a summative evaluation is employed to assess the attainment of proposed objectives. This measure is taken at the end of the each fiscal year and at the end of the project period. Data collection methods focused on the objective-oriented evaluation approach, which used the program's

specific objectives as the criteria for determining success.

The evaluation design of the impact of the Healthy Start Project is a case-control group study. This is a matched comparison group design in which a group of participants of the Home Visiting Program is compared with a control group of subjects who never received program services. The objective of this analysis is to assess the effects of the HVP on infant mortality and key birth outcomes to determine whether changes observed are attributable to the program.

### Key Questions/Hypotheses

The goal of the PRHSP is to improve birth outcomes by promoting the utilization of preventive services and prenatal care through education and case management. It is expected that the participants of the HVP will experience an adequate number of prenatal care visits, better birth and pregnancy outcomes and lower infant mortality rates than non-participants.

## **SECTION II: PROCESS**

A. The evaluation of the Puerto Rico Healthy Start Program involved using a variety of procedures and techniques as well as the analysis of different data sources. Among the procedures used along the past funding period to evaluate the program we can mention a retrospective analysis of the participants' records, elaboration of the participant profile, service provision analysis, a cost-effectiveness analysis, and the development of a case-control group study.

The retrospective analysis of participants' records facilitates the assessment of the services and at the same time it provides information in order to evaluate whether or not services were provided according to the HVP Manual. This analysis is performed in each regional office and is coordinated in advance with the HVN. During the visit, the project evaluator selected a random sample of records (6 interconcepcional actives, 3 enrolled and 3 prenatal actives). The content of the selected records will be evaluated using a standard evaluation form designed according to the HVP Manual. A writing report with the findings and suggestions for improvement is provided and discussed with the project nurses and supervisors.

The participant population profile is a working document that provides important information on socio economic, health characteristics and other important utilization information of the participants. At the end of each project year a review of the clientele was performed. By this means, the HVN and regional staff perform an analysis of all the clients' charts and provide demographic information for each participant, identified risk factors, birth and baby characteristics (birth methods, baby's health condition, birth weight, gestational age, among others).

The service provision analysis is performed on continuous bases using the monthly information provided by the CHWs and the HVNs. This monthly report contains details of the activities performed, participants reached, and the number of cases identified and evaluation results of each activity, as well as number of families served, new families entering the program and the total number of participants by category. The CHWs and HVNs performance information is analyzed also in relation with other financial information related to salaries earned by them. This analysis provides useful information regarding the cost of each intervention, differences in cost between professionals,

among other important information.

In addition to the above mentioned evaluation procedures, the program evaluator performed a case-control study in order to measure the impact of the Healthy Start Project in Puerto Rico. By this means, the participants of the Healthy Start Program were compared to a control group of non participants in the same population in a series of indicators included in the IIMIHS (number of prenatal care, visits, birth and pregnancy outcomes and infant mortality rates). One was conducted in 2001 comparing birth outcomes of HVP participants (n=1,052) with a no-treatment equivalent control group (n=1,052) matched by age, educational level and source of payment for health services. The data collected were organized in data base using MS Access and the statistical analysis was performed using SPSS.

It is important to emphasize that a Participant Satisfaction Survey was conducted from March to July 2005. A self-administered questionnaire was given to participants at the time of discharge from the HVP at the end of their interconceptional period. The Home Visiting Nurses were trained to distribute the questionnaire, to explain the importance of it to the participants, and to collect it in a future visit. To assure the confidentiality of the information provided, the questionnaire was anonymous and it was collected in a sealed envelope. Only the project evaluator had the authority to open the envelopes and give it to the data entry personnel.

The participants' input regarding the services received is also collected by means of the Participants' Committees, in the Participants' Encounters, and through the home visits. Their recommendations and feedback are taken into account when services and staff are evaluated, as well as when new program components are under consideration. The results of the evaluation activities are share also with the members of the HS Consortium in order to obtain feedback and suggestions for further studies.

B. Data for the process evaluation of the HVP is obtained from a variety of sources. Data is collected from the participants' charts, from the monthly report tables that are submitted to the central office by the HVN and the CHWs. For those activities that required the use of financial data, the information is obtained from the MCH Financial Section.

When vital statistics information is needed, the MCH Monitoring, Evaluation and Research Section process and analyze information from the Vital Statistics records and provide the results to the HVP evaluator.

C. During the past funding period, a questionnaire to measure Client Satisfaction was developed as well of other reports forms to monitor progress. A record check list was also design in order to collect information from the participants' charts.

### **SECTION III: FINDINGS/DISCUSSION**

#### Quality Assurance

Home Visiting records are evaluated based on the procedures and forms included in the Home Visiting Manual. The methodology being used to evaluate quality and to perform process evaluations

of the HVP interventions is mainly focused on the degree to which HVN follows record organization guidelines and fully documents the interventions and referrals made. Particular emphasis is made on appropriate documentation of the information required to monitor Performance Measure progress, in particular compliance with EPSDT schedule.

During our evaluations the most frequently found deficiencies were incorrect record number, lack of compliance with established record organization guidelines, lack of written documentation of services HVN provided. Other data missing was information related to prenatal care and childbirth.

#### Clients' Satisfaction Findings/Discussion

Ninety percent (90%) of those surveyed reported the HVN had helped her manage her problems and the same number felt they had been actively involved in the process. Ninety five percent (95%) were satisfied with the time devoted to the visits and with their frequency. An even larger percentage (97.5%) felt the HVN had treated them in a very professional and courteous manner. They also felt the HVNs were very knowledgeable in the topics discussed and capable of answering the questions related to the health of the family. Finally, 92.5% reported services were excellent and effective in helping them resolve their health related problems.

#### Impact Evaluation Findings/Discussion

The findings suggest that in 2001 the HVP participants had more high-risk characteristics that contribute to poor pregnancy outcomes than non-participants. The proportion of participants who did not live with a partner was greater than the controls (26.0% vs. 22.7%;  $0.05 < p < 0.1$ ). Prior abortions or fetal deaths were greater in the HVP group than in controls (11.9% vs. 11.0%).

This study reported that first trimester initiation of prenatal care was equal for participants and controls (72.2%). There was no significant difference in preterm births between the groups. The average number of prenatal visits (10.16 vs. 10.04).

The proportion of very low weight birth was significantly greater in the HVP group than in the controls (2.1% vs. 0.7%;  $p < .05$ ), contrasting with the first study. It is important to mention that there were no significant differences between the two groups when this variable was categorized in two groups (adequate  $\geq 2,500$ g and inadequate  $< 2,500$ g).

HVP participants had significantly better prenatal care in the Adequate Plus category of the Kotelchuck Index than controls (32.2% vs. 27.8%;  $p < .05$ ). Additionally, the proportion of participants who had inadequate prenatal care was lower than the control group (14.3% vs. 16.8%).

In summary, the findings of the present study suggest that prenatal care and birth outcomes in participants and controls are similar, although participants begin their pregnancy with more risk factors than the controls. Based on that information, we can infer that the HVP is helping our participants achieve a more reasonable prenatal care improving their chances for a better birth outcome.

#### **SECTION IV: RECOMMENDATION**

### Satisfaction Study

The findings and suggestions of the satisfaction study are used to improve the Healthy Start Project participants' services. Therefore, it is important to repeat this study on an annual basis and apply the findings or recommendations to make any needed changes to the intervention protocol.

### Impact Evaluation

The Healthy Start participants had more high-risk characteristics that contribute to poor pregnancy outcomes than non-participants. Nevertheless, the findings of the 2006 study reveal similar results in prenatal care and birth outcomes in participants and controls. This suggests that participating in the HVP may be a protective factor for high-risk women. Therefore, it is important to continue with the HVP interventions of the Healthy Start Project. However, further evaluation will be needed to determine factors leading to the elevated VLBW rate among the HVP participants.

### Quality Evaluation

The HS evaluator will continue to monitor completeness of data included in the HVN records. Provide a follow up visit to those evaluates to identify the degree to which they have improved. Train the HVN supervisor to perform such evaluations on a more frequent basis. Make them aware of the significance of appropriately documenting their efforts for legal and reporting purposes

## **SECTION V: IMPACT**

The findings of the impact evaluation ongoing similar studies be performed to determine whether these promising and encouraging results persist over time. Additional, is important to continue with the intervention of the Healthy Start Project because the study shows that the participants of the Healthy Start Program do have more significant low weight births in comparison with the control group.

## **SECTION VI: PUBLICATIONS**

No publications of evaluation results have been generated.

## **VII. FETAL AND INFANT MORTALITY REVIEW (FIMR)**

During the reporting period, the PRHSP did not have a FIMR. The Evaluation and Monitoring Section of Title V has conducted infant mortality surveillance studies, which are used in the ongoing Title V needs assessment. In addition, an interdisciplinary Maternal Mortality Committee in 2005 to study factors associated with the elevated MM incidence on the island. The PRHSP will sponsor the development of a FIMR in one part of the HS project area (southwestern part of the Island) over the course of the 2006-10 grant period.