North Carolina Triad Baby Love Plus Healthy Start Impact Report 2001 - 2004

North Carolina

Grant Number: H49 MC00088

Healthy Communities . . . Healthy Babies . . . Healthy Start

PURPOSE:

The purpose of the Healthy Start Baby Love Plus Initiative is to improve perinatal health disparities by reducing infant morbidity and mortality. This is being addressed by:

- Enhancing the effectiveness of existing Baby Love services and
- Introducing new interventions that complement these existing services.

INTERVENTIONS:

Local and Regional Consortium development to increase community and agency coordination and collaboration to build programs that reflect the needs and values of the community. Family involvement is critical to the success of the consortium and project.

Improved Access to Care by providing transportation (and at times, childcare, and interpreter services).

Outreach primarily to women of childbearing age to increase their access to and knowledge of available health and human services. The community health advocates are the bridge between the communities and agencies.

Enhanced Clinical Services to increase community satisfaction with services and agency capacity to deliver care.

Case Management to enhance efforts to better match a pregnant family's needs with the services provided.

Health Education and Training to improve awareness and knowledge of maternal and child health issues.

Community Planning Process in the belief that communities themselves can best develop the strategies necessary to address the causes of infant mortality.

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I. Overview of Racial and Ethnic Disparity Focused On By Project

Triad Baby Love Plus is an initiative focused on improving birth outcomes and perinatal health of African-American women and their families living in Forsyth and Guilford Counties. In the Triad, as in North Carolina as a whole, there is a disproportionately high infant mortality rate among racial and ethnic minorities. The project strives to close the gap in racial disparities among African-Americans and Whites in the project area. The priority population is African-American women of childbearing age (15-44 years) and their families.

In the project area, women of childbearing age (168,005) comprise 23% of the population, of which 61.2 %(102,295) are white, 32.3 %(54,264), African American, and 6.4% (10,816) other races; 5.1% are of Hispanic origin. At the time of the 2000 Census, there were 39,255 single female-headed households.

Poverty is consistently noted as a contributing factor in poor birth outcomes and perinatal health status. While the poverty level in the project area is lower than the state, it is still a substantial problem for the region. The U.S. Census Bureau (2000) reported that 24% of all project area children under 18 years of age lived in families with incomes below the federal poverty level ($14,150 for a family of three). African-American children are twice as likely to live below the federal poverty level as are Whites (40% verses 20%). Overall, in Guilford County 38,729 children were eligible for Medicaid, as were 28,324 children in Forsyth County. The NC Baby Love Program provides prenatal care for women at 185% of poverty (Medicaid eligibility) and Health Check/Health Choice provides medical services for Medicaid eligible children.

Educational attainment, a contributing factor to the depressed economic, health, and social indicators of the area, is low. Low educational attainment can be a predictor for poverty and poor birth outcome. According to the 2000 Census, 21% of African-American females age 25 and older had not obtained a high school diploma or equivalency degree.

Live Births
During 2001-2004, there were 44,993 live births in the project area. Of the live births during this period, 53% (23,822) were White, 29% (12,963) African-American, 15% (6,742) Hispanic, 3.1%, American Indian (1,406). Teens under the age of 18 years accounted for 3.9% (1,768) of the total live births, with 47% (831) being African-American.

Of the women in the project area who gave birth during 2001 – 2004, 87% (39,010) entered prenatal care during the first trimester. African-American females were more likely to begin prenatal care after the first trimester than White females (82.7% versus 91.7%). Fortunately, less than 1% of all women received no prenatal care. Yet, African-American females were twice as likely to not receive prenatal care as White females.

Special outreach efforts were used to recruit and retain African-American women in the perinatal system of care available in the Triad region.

Adequacy of care for 2001-2004 for the region was examined using the Kessner Index. Although the vast majority of females (84%) received adequate or better than adequate care, only 86% of African-American women received adequate or better care compared to 89% of White women in the region. During this period, 79% of all women in the state received adequate or better than adequate care. By comparison, 70.3% of African-American, 60.1% Hispanic, and 82.2% White received adequate or better care.

Infant Deaths

During 2001-2004 there were 342 infant deaths in the project area for a regional rate of 8.0. African-American infants accounted for 64% (220) of the deaths versus 33% (113) of White infants. The African-American infant mortality rate for this four year period was 17.0. Statewide the African-American infant mortality rate was 16.0.

Table 1
Infant Mortality Rate
2001-2004

	White	African American	American Indian	Other*	Hispanic Origin	Total
Region	5.0	17.0	13.0	7.0	5.0	8.0
North Carolina	6.0	16.0	11.0	5.0	5.0	8.0
*Other includes Asian, Hawaiian, Pacific Islanders						

Table 2
Infant Mortality Rates
2001-2004

	Forsyth	Guilford	North Carolina
2001	9.3	9.3	8.5
2002	9.1	9.4	8.2
2003	7.3	7.8	8.2
2004	10.0	10.2	8.8

From 2001 – 2003 there was a significant steady decline in the regional and state infant mortality rates. In 2003 the regional rate was lower than the state rate. However, in 2004, statewide as well as regionally, there was a slight increase in the infant mortality rate.

Healthy mothers are more likely to have healthy babies. Likewise, planned pregnancies are more likely to result in positive birth outcomes. Unintended pregnancies are more likely to result in health problems for the mother and child. At the start of the project period, 53% of the project area births were unintended (47.0% statewide) according to PRAMS. There were no changes in

the unintendedness rate at the end of the project period. TBLP works with mothers during the interconceptional period to ensure that they have access to family planning services and a medical home.

While the majority of infants in the project area began life at an acceptable weight, far too many are born too early and weighing too little. From 2001 - 2004, both Forsyth (18%) and Guilford (17%) counties had higher prematurity rates than the state (16.3%). In the project area and throughout the state, African-American women continue to deliver a greater percentage of premature infants. Very low birth weight (<1500 grams) rates in the project area have dropped from 2.2% in 2001 to 2.0% in 2004, which is slightly higher than the state (1.6% to 1.9%). The state has almost identical rates in each of the racial categories as the project area. During 2001-2004, African American accounted for (10.5%) low birth weight and (3.6%) very low birth weight births. Lifestyle and medical issues exacerbate slow gestational weight gain and premature delivery which points to the increased need to provide interventions to women during the interconceptional period.

From 2001– 2004, the Sudden Infant Death Syndrome (SIDS) rate for the project area was slightly lower than the state rate (7.3 versus 8.15 deaths per 10,000 live births). There were 386 total SIDS deaths statewide during this period. Of the 31 SIDS deaths in the project area during this period, 23 were African American deaths.

Table 3
Sudden Infant Dead Syndrome Rates
2001-2004

	Forsyth	Guilford	North Carolina
2001	8.6	5.1	8.6
2002	4.4	10.3	6.9
2003	2.2	3.4	8.5
2004	10.8	13.6	8.6
2001 - 2004	6.5	8.1	8.15

Summary

A detailed community needs assessment was conducted prior to project implementation. This initial needs assessment identified a wide range of factors which had an impact on birth outcomes in the African-American community. As noted above, these factors included poverty, low educational levels, health of mother, and delayed entry into prenatal care. A recurring theme in the project area was a sense of alienation from providers of health care and a sense that consumers were not respected by providers. Feelings of disenfranchisement and powerlessness were expressed. The project sought to focus heavily on the issue of alienation from the health care system among members of minority communities. In addressing this issue it was anticipated that access to the perinatal health system would increase, consumers would take a

proactive stance towards health and wellness. Hence, by taking these actions birth outcomes would improve.

The objective of Triad Baby Love Plus was to achieve community-based infant mortality reduction through innovation in service delivery, community commitment to the plan, increased access to services and resources, and multi-agency participation to facilitate incorporation of related programs into the plan.

Healthy Start Baby Love Plus

Healthy Communities . . . Healthy Babies . . . Healthy Start

Vision Statement

Babies will have a healthy start in life by:

a) being born to parents who have carefully thought about and are prepared for the responsibilities of parenthood and into families that will be loving, supportive, and nurturing;

b) living in communities that embrace and promote the concepts of family, community support, and love; and

c) having access to essential health, social, economic, and environmental resources.

II. Project Implementation

A. Model Selection and Rationale

The goal of NC Triad Baby Love Plus Program is to prevent infant death and improve the health of African-American infants and their mothers living in Forsyth and Guilford Counties. As noted in the previous section, there have been some improvements in the regional infant death rate over time; yet, the rate for the region continues to be above the state average. Exacerbating the high infant mortality rate and overall poor health status of African-American women were a mixture of system and client-imposed barriers. Annually, community input was sought to help identify community needs. The table below is a synopsis of the needs that were presented at the various meetings. These barriers were used as the starting point for deciding how the required program models would be addressed by the NC Triad Baby Love Plus.

Table 4
Identified Barriers

Client Perceived Barriers	Provider Perceived Barriers
• Long waits to receive services • Inconvenient hours of service ✓ Lack of focus on fathers and partners ✓ Lack of focus on non-pregnant women • Ineffective marketing of available services • Buildings are old and unattractive (Guilford County) • Lack of transportation or inconvenient transportation ✓ Providers are un-welcoming to clients, lack understanding of cultural issues and have trouble establishing rapport with clients ✓ One-size-fits-all approach to service delivery, including health education ✓ Providers are resistant to change	✓ Clients and families lack knowledge of how to navigate the health care system ✓ Clients and families have negative attitudes toward the health care system • Clients and families have unrealistic expectations of the health care system ✓ Clients are not empowered to help change "the system" ✓ Clients are resistant to change

All of the required core services and system building efforts were included in this Healthy Start Initiative. While depression screening was not an initially required component, project area, needs assessments and perinatal health best practice dictated their inclusion as much did funding requirements. The items identified with ✓ in the box above were viewed as critical focus issues. To address those needs, Triad Baby Love Plus developed several special initiatives as addressed in the table below.

<table>
<tr><th colspan="4">Table 5
Program Response to Barriers</th></tr>
<tr><th>Client Perceived Barriers</th><th>Program Which Addressed Change</th><th>Provider Perceived Barriers</th><th>Program Which Addressed Change</th></tr>
<tr><td>✓ Lack of focus on fathers and partners</td><td rowspan="5">• Interconceptional Care (Family Care Coordination)
• African-American Cultural Diversity Curriculum
• Healthy Start Training Institute
• Continuity Conferences
• Building Bridges
• Psychosocial Training
• Family Empowerment Training
• Ministry of Health
• Customer Service Training</td><td>✓ Clients and families lack knowledge of how to navigate the health care system</td><td rowspan="5">• Healthy Start Training Institute
• Family Leadership Development Retreats
• Regional Consortium
• Community Health Advocates, Network Liaisons & Family Care Coordinators
• Ministry of Health
• Community Sub-Contracts Program</td></tr>
<tr><td>✓ Lack of focus on non-pregnant women</td><td>✓ Clients and families have negative attitudes toward the health care system</td></tr>
<tr><td>✓ Providers are un-welcoming to clients, lack understanding of cultural issues and have trouble establishing rapport with clients</td><td>✓ Clients are not empowered to help change “the system”</td></tr>
<tr><td>✓ One-size-fits-all approach to service delivery, including health education</td><td>✓ Clients are resistant to change</td></tr>
<tr><td>✓ Providers are resistant to change</td><td></td></tr>
</table>

Case management was firmly entrenched in the project region, through NC’s Baby Love Case Management Program, Maternity Care Coordination (MCC). This Medicaid service covers case management for pregnant women through 60 days postpartum. To fulfill Healthy Start Initiative requirements, the following enhancements were provided through Triad Baby Love Plus:

- The “Plus” included intensive outreach and client recruitment.
- The “Plus” allowed for women and their children to be followed for two years interconceptionally.
- The “Plus” included depression screening and referral.

- The "Plus" included health education and training to staff, other health and human service providers, pastors and congregates of African-American churches, and the community at large.
- The key "Plus" was the partnership between the Triad Baby Love Plus Regional Consortium and the NC Department of Health and Human Services, Division of Public Health, Women's and Children's Health Section (WCHS), the applicant agency. This partnership allowed for increased coordination of service delivery for families and providers throughout the region.

B. /C. Model Components and Resources

Case Management

This Healthy Start Initiative was built upon the state's case management program for Medicaid-eligible pregnant and postpartum women, Baby Love; hence, it became the Baby Love **Plus** Program. North Carolina implemented the Baby Love Program in 1987 in an effort to reduce the high infant mortality rate through improved access to healthcare and service delivery for low-income pregnant women and children. The Division of Public Health, Women's and Children's Health Section and the Division of Medical Assistance (state Medicaid) jointly administer the Baby Love Program. An important goal of the Baby Love Program is improving access to early, comprehensive prenatal and infant health care.

Maternity Care Coordination is a key component of the Baby Love Program. Maternity Care Coordination (MCC) is case management that has demonstrated effectiveness in reducing low birthweight, infant mortality, and newborn medical care costs among babies born to women in poverty. The program is implemented through a team of Maternity Care Coordinators and Maternal Outreach Workers. The Maternity Care Coordinators (MCC) are specially trained nurses and social workers who provide assessment, care coordination, monitoring, and referral to program participants. A paraprofessional staff of Maternal Outreach Workers supports the MCCs in the provision of case management services. The Maternal Outreach Workers provide social support and one-on-one assistance to the pregnant woman. There are 34.0 FTE MCCs employed by the two project health departments. No MOWs are located in Guilford and Forsyth Counties.

The enhancement to the Baby Love Program included on-going training to care coordinators and other health care providers in the area of cultural competence, family empowerment, and advocacy for systems change. During the initial funding cycle of this project (1999 – 2001) each project health department received funding to support 1.0 full-time equivalent MCC to handle the additional caseload brought about by the institution of Triad Baby Love Plus. During the second funding cycle, 2001 – 2004, the local health departments provided all MCC services as in-kind support.

Outreach and Client Recruitment

One of the needs presented in the project area was enrollment and retention within the women and children health service system. To fill this gap, the Triad Baby Love Plus Program (TBLP) supported the use of Community Health Advocates to provide outreach and client recruitment to the project counties. Eight full-time equivalency Community Heath Advocates (CHAs) were

hired under the original Healthy Start funding to provide intensive outreach efforts in the local communities (four in each county). See Attachment A for organizational chart. The CHAs, as opposed to the MOWs with the Baby Love Program, did not carry client caseloads. Their responsibilities focus largely on recruiting and referring women and infants into the appropriate health and social services. They worked with families on a limited basis to help them access needed services and complete applications and eligibility processes, but then referred to the appropriate discipline for case management services.

The eight CHAs were reflective of the communities in which they worked and were all either lifelong or long-term residents of the communities. This was an important issue on two fronts. One, the CHAs had immense buy-in to the health and well being of their communities. Two, the CHAs had established relationships and a measure of trust with the community that it would have taken newcomers years to foster.

The CHAs were supervised by the Network Liaisons who were the program ombudsmen. The Network Liaisons were responsible for the local implementation of Triad Baby Love Plus ensuring that all program components were tailored to match the resources and needs of their county. Their responsibilities could be grouped into three main areas - Outreach, "InReach", and Sustainability. The Network Liaisons were engaged in outreach from the stance of partnership development. The goal was to promote multi-agency participation with health and human service programs and community organizations that focused on infants, children, and families. The Network Liaison engaged in "InReach" by integrating TBLP into a comprehensive package of health and social services both in their host agency and in other health and human service agencies. Finally, the Network Liaisons were responsible for program sustainability through creating linkages that would continue program components beyond the funding period. Each project health department hired a Network Liaison for a total of 2.0 FTE positions covering the project area. See Attachment A for organizational chart.

Contracts (Agreement Addenda) were executed with the two local health departments in the project area. The local health departments hired the CHAs and Network Liaisons. All CHA and Network Liaison positions were continuously filled during the project period. There were no changes to the number or scope of work of the CHA or Network Liaison positions during the funding period.

Health Education and Training

The Health Education and Training component of TBLP operated under the premise that, "…communities, given the resources and opportunity can best design and implement the services needed by the families in that community." In support of this premise, TBLP implemented a multi-level, multi-dimensional health education package with separate, but integrated components for the general community, the Regional Consortium, the case management staff (including outreach workers), and program participants. In addition to promoting the adoption of healthy behaviors by program participants, the health education and training component aim was to:

- improve health advocacy skills of consumers and their families,
- improve agency receptiveness to working with the community, and

- increase community ownership of the overall TBLP Program.

In the original proposal, five levels of Health Education and Training were outlined:

1. Childcare Provider Training: Develop a training module to help build child care providers' skills in communicating health and safety information to parents.

2. Ministry of Health Training: Provide Ministry of Health training (basic and continuing education) to pastors and congregates from predominantly African-American churches in the project area.

3. Cultural Competency Training: Provide cultural competency training to health and human service providers in the project area.

4. Customer Service Training: Provide training on customer service and family support/empowerment, to health and human service providers in the project area.

5. Psychosocial Training: Provide training on psychosocial screening, assessment and intervention will be held for targeted providers

The Childcare Provider training was eliminated because of the decrease in grant funding. The other trainings were completely implemented as proposed. Childcare providers were reached as part of the generalized outreach to community agencies and organizations.

The Ministry of Health Initiative was a response to the community and consortium call to more wholly include the faith-based community in program planning and implementation. The Ministry of Health Initiative used an established health ministry curriculum that was designed specifically for African-American churches. The curriculum was developed by Carolyn Parks Bani, Ph.D., who was then Assistant Professor at UNC School of Public Health, Department of Health Behavior and Health Education (and is now currently at the University of Connecticut). The curriculum included two modules: one for pastors and another for lay congregates. Dr. Bani conducted the first training sessions. Thereafter, a contracted coordinator taught the curriculum.

A second major enhancement under the Health Education and Training realm was the African American Cultural Diversity Curriculum and Training. Triad Baby Love Plus partnered with the Office of Minority Health and Health Disparity (OMHHD) to develop the curriculum. The curriculum, *Elements of the Past – Implications for the Future*, was the third component of the cultural diversity training curriculum developed by OMHHD [the others being the Foundational Training and Nosotros (Hispanic/Latino focused)]. Forrest Toms, PhD, a developmental psychologist and noted cultural diversity trainer, was contracted to develop the curriculum.

Customer services and psychosocial training were provided to the outreach and case management staff at the local health departments. Training around maternal and child health issues included interconceptional care, depression, and cultural diversity. The staff was surveyed twice annually to determine training needs and interests.

Additionally, the staff participated in continuity of care conferences. Continuity conferences are a review system focused on training and quality assurance. The quarterly continuity conferences brought together staff from different disciplines involved in the patient's care. Specifically, doctors, nurses, nurse midwives, nutritionists, social workers, health educators and paraprofessionals from the family planning, maternal health, child health, WIC and STD clinics were invited to participate. Mona Ketner, the Perinatal Outreach Education and Training (POET) Coordinator, employed by Wake Forest University School of Medicine facilitated the conferences.

These conferences were designed to:
- present cases for which a poor birth outcome resulted;
- examine the care that was provided and determine what, if anything, contributed to the poor birth outcome; and
- develop a coordinated plan of care to ensure that any future pregnancy will result in a healthy outcome.

Thus, continuity conferences served as a forum for team management of high-risk cases and provide opportunities for continuing education for staff.

Interconceptional Care

The Triad Baby Love Plus Program endeavored to enhance existing care coordination by offering comprehensive case management to mothers and infants thorough two years postpartum. The MCC provided case management services to women during pregnancy through 60 days postpartum. All women enrolled in MCC are screened at program closeout to determine which program will follow them during the two-year interconceptional period. To provide services to women during the interconceptional period, a new case management professional – the Family Care Coordinator (FCC) - was added to the team.

The Family Care Coordination component of the program provides a seamless transition from MCC. The FCC focuses efforts on providing case management to high-risk women, while the Child Service Coordinators (CSC) provide case management to children with special health care needs. All women (and their infants) who were initially enrolled in the case management program were followed for a two-year interconceptional period. Each local health department employed 1.0 FTE Family Care Coordinator (FCC), each a trained social worker.

The local health departments hosted "continuity conferences" for their staff and program partners to facilitate team management of high-risk cases and provide opportunities for continuing education for health department staff. Follow-up on missed maternity, family planning and well-child appointments were provided to determine why the appointment was missed and to reconnect the woman with the health care delivery system. The CHAs assisted in providing missed appointment follow-up.

The interconceptional care program made considerable progress during the project period. Considerable time and effort were placed on developing protocols for the program, conducting provider education, and integrating the program within the current case management system.

The original plan entailed the FCCs providing case management services to a subset of women identified at highest risk for future poor birth outcome or a short interconceptional period. The program expanded to provide case management to all women who were originally enrolled in prenatal case management. The women were during the interconceptional period. The following table illustrates the triage process of the interconceptional care program participants.

Table 6
Follow Up Disposition Chart

	Baby High Risk	**Baby Low Risk**
Mom High Risk	Child Services Coordination	Family Care Coordination
Mom Low Risk	Child Services Coordination	Family Planning Child Health

Depression Screening and Referral

Depression screening was provided as a standard part of case management. Initially, MCCs used an informal interviewing process as a way to identify depression and other psychosocial issues. A more structured process was implemented during this funding period. The comprehensive goal of the depression screening and referral component of TBLP was to improve family health outcomes by educating, screening, identifying, and intervening in situations of depression. Program participants enrolled in the case management and interconceptional care components of the program were screened for perinatal depression during pregnancy and during the postpartum period. Depression was screened and identified using the MCC Pathways of Care questions along with the Edinburgh Postnatal Depression Scale (EPDS). The MCCs are responsible for screening clients for depression and for coordinating assessment, referral, treatment, and follow-up services. Considerable time has been spent developing relationships with mental health providers to ensure that women who screen positive have access to appropriate mental health services.

Local Health System Action Plan

There was a two step process for developing the Local Health System Action Plan (LHSAP). Step one entailed developing a strategy to assess the various components of the perinatal service delivery system in the project area. Considerable time was spent in collecting, compiling, and reviewing all significant data that had been conducted in the project area. This included community diagnoses, need assessments, surveys, and Triad Baby Love Plus project data.

The second step was to design a process for connecting the community and providers to assure the provision of quality services that served the total needs of women of childbearing age and their families. Three levels of interviews were conducted with health providers, community partners, and outreach staff.

Input into the LHSAP was received from Regional Consortium members, program outreach and case management staff, and key informant interviews with local and state partners. There was also an ad hoc LHSAP Work Group of the Regional Consortium formed to provide input and oversight into the entire process. The Regional Network Manager and evaluation team coordinated the entire LHSAP process.

One products of the LHSAP process was the Background Summary Report (Attachment B) which described the nature and extent of the infant mortality problem in the Triad, the current resources available to address the problem, and feedback from consumers and providers about the functioning of the perinatal system.

The LHSAP focused on issues aimed at reducing negative environmental/social factors for pregnant and parenting women. Specifically, the LHSAP focused on:

1) Reducing the underlying causes/ root issues that lead to risk factors for poor birth outcomes by:
   - assuring the provision of quality services to meet the social, emotional, and medical needs of parenting women and their families
   - helping women enter pregnancy healthier by reducing negative environmental issues
   - reducing the number of unintended pregnancies

2) Helping women enter pregnancy healthier by strengthening their social support systems, especially focusing on fatherhood issues.

The major challenge faced in developing and implementing the plan was maintaining the momentum of the enthusiasm of the volunteer ad hoc consortium committee. In implementing the LHSAP the usual challenges of working in a worsening economy were faced. The project weathered some of the challenges by providing the technical assistance and infrastructure support to keep the work of the LHSAP moving forward.

Consortium

Forsyth and Guilford Counties had a history of working on infant mortality issues. As such, over the years, there were a number of different efforts established. Each had organized infant mortality coalitions (the membership was mainly health and human service providers). However, they had not worked jointly on the infant mortality issue from a regional perspective. The introduction of TBLP facilitated the ability of the two coalitions to work more effectively to enhance the region's perinatal health system.

Since 1999, TBLP has coordinated a regional consortium that covered both project counties and included representation from each county. To establish its niche and fill a dire need, the Regional Consortium assumed a community focus. Instead of competing for critical stakeholders, the consortium sought to ensure representation of the local community by partnering with local community based organizations and the faith community to ensure that consumers and community members were represented.

Collaboration and Coordination with State Title V and Other Agencies

The Women's and Children's Health Section (WCHS) is the state Title V agency and the grantee organization. The relationship that existed between WCHS and Triad Baby Love Plus Regional Consortium over the life of the project provided a partnership that promoted successful implementation of the project. Collaboration and coordination of effort helped insure that Triad Baby Love Plus was attuned to the specific needs of the project area and consistent with the State's vision for comprehensive community-based systems of service. As a component of WCHS, Triad Baby Love Plus was able to build upon a strong network of providers and partners in the project area and throughout the state.

WCHS networks and maintains collaborative linkages with a wide range of state and local service providers and resource systems in the planning and implementation of perinatal health initiatives in the state. Partnerships with other agencies and local non-profit organizations continued to permit WCHS to expand its perinatal health service delivery, referral, and educational resource capacity.

WCHS has developed and maintained a very strong relationship with the University of North Carolina (UNC) School of Public Health through its partnership with the Cecil G. Sheps Center for Health Services Research. Dr. Julia DeClerque, who leads the evaluation team that assesses Triad Baby Love Plus program efforts, is on staff at the Sheps Center. Dr. DeClerque is also responsible for the evaluation of the overall North Carolina Baby Love Plus Program. This partnership is a good example of the mutually beneficial relationship that exists between the WCHS and UNC-Chapel Hill.

WCHS also has a strong, long-standing relationship with the State's Office of Minority Health and Health Disparities (OMHHD). Since 1994, OMHHD and WCHS have jointly administered Healthy Beginnings, the state's minority infant mortality reduction program. This intervention has the same core goal as this Healthy Start initiative---eliminating disparities in perinatal health. A most vivid example of the collaborative partnership with OMMHD was the development of the African American Cultural Diversity Curriculum, *Elements of the Past*. Using Healthy Start funding, TBLP partnered with OMHHD to develop the Curriculum (discussed under the Health Education section).

In addition to its partnerships with the health departments, community health centers, and hospitals in the Triad region, WCHS worked collaboratively with churches, community-based organizations (CBOs), and fraternal organizations – Masons and Order of Eastern Stars. The goal was to work with agencies and organizations that were closely linked with the community and the priority population. On-going technical assistance and skill-building opportunities were provided to the organizations in order to enhance their program planning, implementation, monitoring, and evaluation capacities. This type of support increases self-sufficiency and enhances the capacity of these entities to function as a resource to their communities. Twelve churches participated in TBLP Ministry of Health training and have maintained active health ministries.

- Alpha & Omega Metaphysical Church
- Buffong Ministries
- Holy Trinity Full Gospel Baptist Church
- New Light Missionary Baptist Church
- Galilee Missionary Baptist Church
- New Jerusalem Missionary Baptist Church
- Mt. Zion Baptist Church
- Christian Fountain Church
- St. Thomas Chapel /Ministry PUSH
- El Bethel Church of God
- Agape Family Ministries
- New Beginning Word of Life

Continuing education workshops and technical assistance was provided to those trained to increase their knowledge in MCH issues and ability to carryout their programs. In November 2003, TBLP co-sponsored the statewide inaugural Faith and Public Health Conference – Faithful to the Call. This event attracted faith and public health leaders from around the state to develop an action plan for addressing health disparities.

Likewise, TBLP operated a request for application program for community-based organizations to implement innovative programs that complemented existing program services. Four programs were funded to provide postpartum depression support, jail health initiatives for fathers, substance abuse screening and treatment for pregnant women, and skill development for young families.

Sustainability

The Triad NC Baby Love Plus Program led the effort in promoting inter- and intra-agency collaboration as a step towards program sustainability. One of the problems noted at the local level was the chasm between programs within the agency and the lack of collaboration with outside organizations. Whether this issue was real or perceived, it was still an issue that needed to be addressed.

Interagency collaboration was enhanced through implementation of the interconceptional care component of the program. The original Triad NC Baby Love Plus Program (1999 – 2001) was housed within the health education section of the local health departments. The interconceptional care program was erected within the clinical/case management section. As work began on developing the program, it entailed a team from the various sections. The result was a more seamless interfacing between the various program components.

Interagency collaboration was also enhanced around the local health departments. Initially, the CHAs were housed solely within the local health departments. As a means of working more collaboratively within the community and to more effectively serving clients, the outreach workers, though still hired by the local health departments, were outstationed to various community-based organizations. Forsyth County Health Department developed memorandums of understanding with three community-based organizations to provide community outreach. The CHAs were out-stationed to three community-based organizations – Mother WIT, Inc., Today's Woman Health and Wellness Center, and Living Water. Additionally, the role of the Network Liaison was in part to enhance partnerships with other community-based organizations that had a focus on mothers and children. This collaboration was yet another vehicle for the

health department to gain input from the community and for the community to have their voice heard.

Another plus for TBLP was the influence that the program has had on community empowerment and ownership. Members of the Regional Consortium truly embraced the program. When funding status was tenuous for Triad and Eastern NC Baby Love Plus, Regional Consortium members took it upon themselves to begin advocating for the funding. They began a series of calls and faxes to their federal representatives. Many of these consumers and community members who took up the cause had never before made such a move. This, we strongly believe, was the move towards community ownership of the program. It also speaks towards the community feeling that they had the power to evoke change. Community ownership is a major step in program sustainability.

TBLP, led by the grantee agency, Women's and Children's Health Section (WCHS) consistently held that the most viable sustainability strategy for large scale Healthy Start interventions was to incorporate models which demonstrated to be successful into the state Medicaid program, and to allow the interventions to be supported on an ongoing basis by Medicaid reimbursement. It was a strategy that had a good track record in North Carolina in the past. WCHS staff worked in close collaboration with the state Medicaid agency, the Division of Medical Assistance (DMA). DMA agreed, early in the original planning process, to consider this initiative to be a comprehensive birth outcomes improvement demonstration project, one which, if shown to be both effective and cost-effective, would move from grant funding to Medicaid reimbursement. In addition, these services would become available to Medicaid recipients statewide. Dialogue was held with DMA throughout the funding period. Because of state budget shortfalls during the funding period, Medicaid was not in a position to add new programs.

D. Consortium

1. Consortium Establishment

As noted section II-B, both counties in the Triad Baby Love Plus region, had active infant mortality coalitions prior to program inception. Triad Baby Love Plus focused on consumer and family education and empowerment around the health of mothers and babies.

TBLP Regional Consortium held its first meeting in February 2000 and began to establish itself within the community and to organize its various subcommittees (Table 7). Considerable effort went into building and maintaining consumer involvement. Throughout the funding period, consumer presence in the Regional Consortium held at around 22% of the membership. An average of 41 people attended each full meeting of the Consortium. The bulk of the participants were African-American females. The Regional Consortium met bimonthly in even months (February, April, etc.).

While there were no territorial barriers to overcome in establishing the Regional Consortium, there were logistical barriers. The primary barrier was transportation – or lack of transportation. Many of the consumers and community members that serve on the Regional Consortium did not have personal vehicles. As urban counties, both Forsyth and Guilford had public transportation

available; however, bus transportation was only available within the metropolitan areas of each county and did not reach the less populated towns. And, as public transportation goes, it was not always timely or convenient, especially at night. The meetings were held in the evenings to accommodate consumer work schedules. Thus, transportation was an issue that continuously needed to be addressed to ensure consumer and community member participation in Regional Consortium activities.

Finding an acceptable site was also a bit of a challenge. The ideal site needed to be equidistant between the counties. It also had to be large enough to accommodate the meeting, a supervised childcare area (families were encouraged to bring their children to the meetings), and be able to accommodate serving meals.

For the bulk of the project period, the Regional Consortium met at a local church in Kernersville, NC which was roughly mid-point between the major cities in the project area. While full consortium meetings were held at a central location, the committee meetings rotated between counties to allow greater access by the consumer members. Also, conference calls were used to facilitate consumer participation.

Transportation arrangements were made for the consumers using either local health department vans or a contracted van service. Consumers who had their own transportation received reimbursement for transportation.

2. Consortium Structure

Co-chairs (consumer and community representatives) lead the Regional Consortium. Following by-laws, the Regional Consortium met on a bi-monthly basis in even months. The work of the Regional Consortium was carried out at the committee level. Seven standing committees carried out the collective work of the consortium. Brief descriptions of these subcommittees are provided in the table below. The standing committees met the month preceding the Regional Consortium or as deemed necessary to carry out the operation of the program.

Table 7
Regional Consortium Committees

Title	Role
Community Subcontracts	This subcommittee helps implement the Community Subcontracts Program. Its members assist in developing requests for applications, coordinating pre-application workshops, reviewing and scoring grant applications and conducting site visits to monitor the progress of funded projects.
Family Leadership Development	This subcommittee helps develop initiatives to strengthen family involvement on the Regional Consortium. Its activities center on family empowerment, building advocacy skills and encouraging mutually-respectful relationships.
Governance & Resources	This subcommittee helps develop by-laws and procedures for the Regional Consortium and, over the long-term, will assist in

Table 7 Regional Consortium Committees	
Title	**Role**
	developing articles of incorporation. Its members also help the Regional Consortium identify and secure resources to supplement those supplied by the Healthy Start Initiative.
Newsletter	This subcommittee helps develop the quarterly newsletter published by Triad Baby Love Plus. Its members help identify topics for feature articles, write articles and review newsletters before they are published.
Public Relations & Marketing	This subcommittee helps develop strategies for increasing the visibility of Triad Baby Love Plus in Guilford and Forsyth Counties. Its members assist in developing marketing strategies, identifying target areas, identifying media markets and in developing and reviewing promotional materials.
Speakers Bureau	Members of this subcommittee represent the project before local organizations and agencies that request information about Triad Baby Love Plus. Members receive training on how to conduct oral presentations on the program and topics related to improving the health of women of childbearing age and their families.
Training & Development	This subcommittee helps develop the Regional Consortium's training and development agenda. Its members are involved in all phases of training and development, including agenda development, speaker identification and program execution.

The Regional Network Manager oversaw the development of the Regional Consortium. Consortium recruitment was a major focus of the Regional Network Manager's job function. In addition to coordinating educational efforts of the program, the Regional Network Manager provided support and leadership to the consortium. Emphasis was placed on recruiting consumers and community leaders.

The consortium was composed of people from various socio-economic backgrounds, racial groups, and gender. At the close of the funding period, the racial/ethnic breakdown of the membership of the Regional Consortium was 84% African American and 16% White, representative of the population it was serving with regards to race/ethnicity. The group was primarily female but worked diligently to increase male involvement. At the end of the funding period, 25% of the overall membership of the Regional Consortium was either consumers (22%) or other community members (3%). Over half (54%) of the members were active (attending at least half of the meetings of the consortium). While local and state TBLP staff may participate in all discussions of the Regional Consortium, they do not have voting privileges per by-laws.

Table 8 Regional Consortium Membership Status	
Category	**Percentage**
State or local government	5%
Program participant	22%
Community participant	3%
Community-based organization	5%
Private agencies or organizations	5%
Providers contracting with the Healthy Start Program	41%
Other providers	3%
Other – please specify[1]	16%

Several staff development in-service training sessions were conducted to educate the local partners on the value of including consumers in the decision-making process. Later, empowerment sessions were provided for the consumers to enhance their existing skills and to promote active involvement with the project. TBLP co-sponsored a Board Development Retreat with the Eastern and Northeastern Baby Love Plus Programs. The intent of this one-day retreat was to build Regional Consortium members' ability to provide leadership at both the consortium and community levels. This six-hour workshop focused on community advocacy and roles and responsibilities of board members.

To further enhance recruitment and retention of consumers, a Consumer Advocate position was created in December 2004. The primary purpose of this position is to represent the interest of the local community from the consumer perspective for TBLP. This position is specifically designed to serve the following functions:

1. Serve as an ombudsman for TBLP, representing the interest and needs of the consumer and general community.
2. Recruit and retain consumer members to serve on the Regional Consortium.
3. Assist the Regional Network Manager in developing and implementing activities of the Regional Consortium.
4. Serve as the consumer representative for TBLP on the local, state, and national levels.

3. Consortium Assessment and Partnership

During the process of creating a Regional Consortium for the two county project area, emphasis was placed on meeting the needs of the community. The need for active consumer participation/input was crucial. Community surveys were conducted to gather information from women of childbearing age who resided in the project counties. The information collected ranged from assessing their knowledge of Triad Baby Love Plus to identifying barriers to health care. This community survey was one of the Regional Consortium's first attempts to gather community feedback on the program and services.

[1] The other category consists of two members from the Forsyth County Infant Mortality Reduction Coalition and four members who represent local fatherhood initiatives.

After establishing some creditability in the local communities the establishment of new partnerships was a relatively a simple task. The membership on the regional consortium increased yearly with an excellent balance of the type of members. The grantee organization viewed the Regional Consortium as a full partner in the infant mortality prevention efforts. This cooperative arrangement afforded the opportunity to implement a broad range of activities aimed at reducing infant mortality and morbidity. The members of the regional consortium provided input and guidance on program development, program implementation, and training.

The Training and Development Committee of the consortium implemented a survey twice a year to assess the training needs of the consortium members and plans accordingly. Also the Health Systems Committee of the consortium conducted a perinatal health needs assessment and actively worked on addressing the identified issues. The consortium also assist in building onto state and local infant mortality reduction efforts through addressing the needs and strategies outlined in the comprehensive needs assessment and program plan to assure that priority populations can access services including primary care, case management and support services.

Recognizing the need to work with local community-based organizations and the need to return money to the community, the consortium developed the community subcontracts program. Through a Request for Application process, local community based organizations submitted proposals to address issues related to improving the health of mothers and babies. This activity also supported the Triad Baby Love Plus objective of identifying and supporting sustainable infrastructures in the communities served.

The Community Subcontracts Program focused on community-based and public organizations with strong roots in minority communities in Forsyth and Guilford Counties and supported them in implementing innovative approaches to infant mortality prevention. The subcontracts focused on postpartum support, nutrition, substance use, and other health education issues.

4. Community Strengths and Collaboration

The Regional Consortium was fed in part by the local coalitions. Each of the two project counties has its own distinct infant mortality coalition, both of which have been in existence for over ten years. They each address infant mortality; however, they address the issues at the systems level, not the community level. The local coalitions are each tied to the local health departments. The Forsyth County Health Department using separate foundation funding, operates the Forsyth County Infant Mortality Reduction Coalition. The Guilford County Coalition on Infant Mortality, a separate non-profit entity, is housed within the health department.

Creating a regional consortium could have poised the problem of competing for community partners. Instead of competing for critical stakeholders, the consortium established its niche by ensuring representation of the local community. Neither local coalition included consumer representation prior to Triad Baby Love Plus. Resulting from Triad Baby Love Plus' emphasis on consumer involvement, both coalitions began to involve consumers in coalition activities. The consortium partnered with local community based organizations and the faith community to

ensure that consumers and community leaders were represented. The Regional Network Manager also coordinated interagency meetings with the two local coalitions and March of Dimes with the purpose of reviewing each program's activities to see in which areas collaboration was possible.

5. Weakness and/or Barriers Faced

Meeting location, transportation, and childcare were the most significant barriers faced during the funding cycle. Initially, the Regional Consortium held its meetings in Forsyth County, but the meeting site was not stable. The members voted for a central meeting location versus rotating the meetings throughout the region. The decision was made based on the belief that a consistent meeting site would promote program visibility and would encourage members to attend as the meeting location, date, and time would be stable. The members voted to meet bi-monthly on the second Thursday of the month at 6:00 p.m. in Kernersville, NC (Forsyth County). This would put the Regional Consortium at a near central location for the project counties.

Yet and still, there were problems with having the meeting in one location. As the Regional Consortium covered two counties, it was virtually impossible to have a meeting location that was convenient for all members. Transportation to the meeting was an issue for consumers. The Regional Network Manager and the Network Liaisons assisted consumers in finding suitable transportation to the meetings. For assistance and as an incentive, consumers were also eligible for travel reimbursement through the program. Even with travel reimbursement, transportation was difficult. The Regional Consortium settled with contracting with a van service to transport consumers to the meetings.

There were several consortium members that had school age and younger children. Childcare was provided during the meetings that allowed the entire family to participate in the Regional Consortium. The school age children had ample time to complete homework assignments and younger children were able to participate in enrichment activities.

6. Consumer and Community Involvement with Decision-Making Highlights

Historically, consumers have not had a voice in the design and implementation of local programmatic efforts. Local and state entities have a history of not being inclusive of consumers and hearing and respecting their voice. Some consumers feel that they lack the knowledge in MCH issues to make a difference. The Regional Network Manager (and a Consumer Advocate beginning in 2005) provided orientation for new consortium members. Each member received an orientation packet that included by-laws, member responsibility, committee structure, meeting schedule, and general information about MCH efforts. There was follow up with consumers who missed meetings to ascertain the cause and bring them up-to-date on meeting issues. While the full consortium has a standard meeting time and location, committee meetings rotate between counties to allow for greater consumer participation. The standing committees determined their time and meeting place in order to meet at the convenience of the consumer members.

The Annual Healthy Start Training Institute, sponsored by the Regional Consortium, is the largest training event of the NC Baby Love Plus Program. The Training Institute is a high profile event that provides consumers and community members the opportunity for front-line participation in the NC Triad Baby Love Plus Program. The Training Institute was the opportunity to bring consumers, community members, faith, social, and civic organizations, and health and human service providers together for skill-building and sharing. The Training Institute is one of only a few state-wide conferences that provide such a mixture of participants. There was an average of 400 individuals including children at each Training Institute.

4th Annual Healthy Start Training Institute	July 25 – 27, 2001
5th Annual Healthy Start Training Institute	July 30 – 31, 2002
6th Annual Healthy Start Training Institute	July 17 – 19, 2003
7th Annual Healthy Start Training Institute	July 29 – 31, 2004

Consumers and their families also benefited from attending bi-annual Family Leadership Development Retreats that focused on issues that affect their daily living. Training was targeted to enhance the skills of the consumers (empowerment, finance, health care access, advocacy, and parenting). The Family Leadership Development Committee of the Regional Consortium planned and hosted the retreats. An average of 20 families attended each of the training retreats.

Family Leadership Development Retreat	February 2 – 3, 2001
Family Leadership Development Retreat	May 18, 2002
Family Leadership Development Retreat	April 5, 2003
Family Leadership Development Retreat	October 18, 2003
Family Leadership Development Retreat	October 16, 2004

Additionally, consortium members benefited from their involvement in the Board Development Retreat. This was an opportunity for consortium chairs, committee chairs, and others to engage in training opportunities around leadership development. The focus was on further development of the regional efforts, retention of members, and improvement in advocacy skills. The end result of the Board Development Retreat was that consortium leadership, including consumers, gained valuable skills in program advocacy that they were able to put into use time and again in advocating for continued funding of this Healthy Start initiative. The Regional Network Manager also met with individual members to discuss their involvement and contribution to the consortium.

7. Obtaining Consumer Input in the Decision Making Process

Regional Consortium by-laws mandated consumer involvement in all aspects of the program. Through training initiatives such as the Family Leadership Development Retreats, consumer comfort level and ability to participate in the decision-making process were heightened. Also, contractors were required to include consumers in the development of policies and in the hiring of staff.

Not only was training provided to make consumers more informed decision makers, but health and human service organizations received training and technical assistance in customer service

and cultural diversity to aid them in being more receptive to consumers as decision makers versus viewing consumers as only users of services.

Eliminating Health Disparities	June 13, 2001
Making Room at the Table	June 26, 2001
Foundational Cultural Diversity	September 21, 2001
Foundational Cultural Diversity	January 16, 2003
Foundational Cultural Diversity	August 7, 2003
Foundational Cultural Diversity	January 16, 2003
African-American Cultural Diversity	January 31, 2003
Foundational Cultural Diversity	October 21, 2004

8. Utilizing Consumer Suggestions

With the growth of the Regional Consortium came a change in roles. In addition to providing oversight services, the Regional Consortium undertook a greater responsibility for program development. The Regional Consortium made several decisions that refocused activities as well as financial resources. The most visible representation of the Consortium's input into budgetary matters was with the community sub-contracts program.

Consumers were also intricately involved in:

- Planning and implementing the Health Start Training Institute and
- Planning and implementing the Family Leadership Development Retreats
- Developing the consumer reimbursement policy to facilitate consumer participation in meetings and training sessions
- Hiring staff (local and state)
- Grant development and submission for competitive grant cycle (2001 – 2004) and annual continuation applications

E. Sustainability

1. Efforts with Managed Care and Third Party Billing

Healthy Start funds were maximized through Medicaid reimbursement for case management services for prenatal care (MCC) and children with special health care needs (CSC). The two project area health departments have the ability to recoup prenatal case management expenses for pregnant women through sixty days postpartum. MCC billing provided nearly $2 million of in-kind donations annually toward grant efforts.

2. Major Efforts to Continue Project without Healthy Start Funding

The Triad Regional Consortium held discussions throughout the funding period on the merits of becoming 501(c) (3) non-profit organizations. By-laws were developed and articles of incorporation are in place.

3. Ability to Overcome Barriers or Decrease Negative Impact
On the local level, the Community Health Advocates and especially the Network Liaisons are responsible for sustainability through creating linkages that will continue program components beyond the funding period. This is most notable through outreach to

III. Project Management and Governance

A. Project Management

Staff Patterns

The Division of Public Health, Women's and Children's Health Section is the grantee organization. Triad Baby Love Plus was housed within the Women's Health Branch, Perinatal Health and Family Support Unit of the Women's and Children's Health Section. Administration and financial management of the Healthy Start program was provided through the Section.

Judy Ruffin served as the Program Manager during the entire funding period, 2001 – 2005. Ms. Ruffin was housed within the central office in Raleigh, NC. The other staff members assigned to implement Triad Baby Love Plus Program were:

- LaVerne Partlow, Regional Network Manager - May 2000 – March 2005.
- Donna Sutton, Project Coordinator – May 2000 – August 2001
- Vicky Foye, Cultural Diversity Coordinator – September 2000 - August 2001
- Jackey Mitchell, Administrative Assistant – August 2000 – July 2002
- Kaye Linville, Administrative Assistant – November 2002 - Present

The Project Coordinator and Cultural Diversity Coordinator positions were eliminated because of funding cuts that occurred in 2001. The responsibilities of these positions were assumed under the Regional Network Manager and Program Manager scopes of work.

The Regional Network Manager served as the liaison between the Women's and Children's Health Section and the consortium and local agencies. This position reported to the Program Manager. The position was housed within the project region in the Winston-Salem Regional Office (Forsyth County).

Throughout the life of the program, the grantee organization partnered with the local health departments within the project area to hire local staff to carry out many of the program activities. Eight full-time equivalent CHA positions were maintained as well as 2.0 full-time equivalent Network Liaison positions and 2.0 full-time equivalent Family Care Coordination positions.

B. Resource Availability

The WCHS, the grantee organization, has extensive experience in administering a complex array of statewide programs and correspondingly experience with large-scale fiscal management of such programs.

C. Changes in Management and Governance

Acknowledging that it was more expedient to weather changes at the state versus local level, two state level positions were eliminated at the beginning of the project period. The Project Coordinator and Cultural Diversity Coordinator positions were eliminated. The Project Coordinator was responsible for coordination of the case management and community sub-contract components of the project. The Cultural Diversity Coordinator was responsible for developing the African-American Cultural Diversity Curriculum and train-the-trainer program in coordination with OMHHD. The responsibilities of these positions were assumed under other positions.

Table 9
Triad NC Baby Love Plus
NC DHHS Staff

Position	Duties	Changes
Administrative Support	Administrative Support for Triad NC Baby Love Plus staff and Regional Consortium	No Change
Project Coordinator	Management of Case Management and Community Sub-Contract Efforts	Position eliminated
Cultural Diversity Coordinator	Coordination of Cultural Diversity Training Efforts	Position eliminated
Regional Network Manager	Management and support of Regional Consortium and Outreach Efforts	Position expanded to include management of Community Sub-Contract efforts
NC Baby Love Plus Program Manager	Administration and Management of NC Baby Love Plus Program (Triad, Eastern, and Northeastern Projects)	Assumed management of Case Management Efforts and oversight of Cultural Diversity Training Efforts

LaVerne Partlow served as the Regional Network Manager for the Triad Baby Love Plus Program throughout the funding period. The Regional Network Manager's primary focus includes development of the Regional Consortium and support of local staff (Network Liaisons and Community Health Advocates). The Regional Network Manager convened monthly team meetings to provide skill-building and networking opportunities for local staff. This position also provided consultation and technical assistance to community sub-contractors. An organizational chart for the period 2001 – 2004 is included in Attachment A.

There were changes at the local level. Both project county health departments, Forsyth and Guilford, had staffing changes during the project period. The Regional Network Manager and/or the Baby Love Plus Program Manager served on the interview teams. The Network Liaison assigned to Guilford County accepted a position in Forsyth County as Director of Community-Based Initiatives for the Forsyth County Infant Mortality Task Force. The Forsyth County Infant Mortality Task Force is housed at the Forsyth County Health Department. A current Baby Love Plus Community Health Advocate filled the vacated Guilford County Network Liaison position.

The Family Care Coordinators for both project counties came on board during the later part of the first project year. While the Guilford County Family Care Coordinator position was stable, there was a three-fold turnover in the Forsyth County position. The position was subsequently filled and stabilized in 2002.

D. Process for Distribution of Funds

The process for distribution of funds was developed during the project planning stage. Staff from the Women's Health Branch (of WCHS) met with leaders from the local health departments and Triad Regional Consortium (both consumers and community representatives) to discuss program requirements and funding availability and restrictions in an effort to prioritize projects for TBLP. Annually, the local health departments were requested to provide salary requirements. Operating expenses for the local health departments were provided using standard state formulas. Funds were then distributed to the local health departments through the state's Local Health Department Agreement Addenda process. Funds were distributed to other contractors through a Request for Application process. Generally, all contracts were on a July – June fiscal year.

E. Additional Non-Healthy Start Resources

The major non-Healthy Start contributor to TBLP was the state's Baby Love Program. Baby Love, through Medicaid billing provided nearly $2 million of in-kind donations annually toward grant efforts. Other contributors to the support of the program (in-kind and financial) were the NC Chapter of the March of Dimes, the NC Office of Minority Health and Health Disparities (OMHHD), and the NC Healthy Start Foundation. These organizations provided program support in the form of conference sponsorship, staff skill-building, technical assistance, and general program collaboration around health disparity efforts.

F. Cultural Competency of Contractors

The Women's and Children's Health Section is firmly committed to racial disparity prevention. A step toward this goal is cultural competency of staff and contractors. Triad Baby Love Plus state and local staff was required to participate in continued cultural competency training. TBLP, in partnership with the OMHHD, conducted the cultural diversity initiative for the local health departments and community-based organizations in the project region. Additionally, all TBLP contracts stipulated the provision of culturally appropriate family-friendly services including insuring that all health education materials were culturally appropriate.

IV. Project Accomplishments

A. Major Strategies with Lessons Learned

See Project Period Progress Report below.

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Outreach Objectives		
O1: By 5/31/05, 40% of primary contacts will result in a perinatal or child health referral (for prenatal care, WIC, women's wellness/family planning, child health, or STD clinic).	a) Execute contracts with two local health departments to continue support of 8 Community Health Advocates.	Contracted with Forsyth and Guilford County Health Departments throughout funding period. Each health department hired 4.0 FTE Community Health Advocates (CHA) who provided intensive outreach to the targeted communities. There was significant turnover at one health department due mainly to low salaries. Even with the turnover, there were not lapses in outreach coverage. CHA positions at the other health department were stable with one staff change during the funded period. The change was due to the promotion of one CHA to the Network Liaison position. That same health department did face a budget shortfall that resulted in the potential loss of a CHA position. Recognizing the value and impact of the CHAs, the Women's Health Branch allocated additional funds for continued support of the position.
	b) Conduct skill-building activities to enhance CHAs community outreach efforts. c) Provide intensive outreach to women of childbearing age and their families reaching 12,000 individuals annually.	The Regional Network Manager convened monthly team meetings to provide skill-building and networking opportunities for local staff. During 2001 – 2004 the staff made approximately 74,000 one-on-one contacts with women of reproductive age in the target communities, and another approximately 32,000 contacts with other individuals in the community through group meetings. The total number of people reached through *Baby Love Plus* outreach efforts in this time period was over 106,000 individuals or an average of about 2,200 people per month.

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Outreach Objectives		
		More than 150 neighborhood and 190 community outreach events were held annually, which represents an average of 14 events per month in each county. The outreach team reached 32,248 individuals through group events during the project period. There was a shift in the focus of the program away from a general community approach to a more targeted and intensive approach encouraged CHAs to provide outreach to women of reproductive age likely to have a need for perinatal-related referral. Of the total number of individual (primary) contacts made, 4,422 (6.0%) were referred for some follow-up service. This represents over 1,000 referrals per year. However, only a small proportion of these referrals was for a service related to perinatal care — prenatal care, maternity care coordination, WIC, or family planning. Only 10% of all the 4,422 referrals were for prenatal care, and only 5% were made to Maternity Care Coordination. Other referral needs of clients include Department of Social Services (7%), Family Planning (8%), Well-Child Care/Immunizations (5%), and WIC (7%).

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Case Management and Interconceptional Care Objectives		
CM 1: By 5/31/05, increase to 100% the proportion of program participants who are screened for significant perinatal risk factors within the 60 days postpartum. Baseline: This is a new intervention. No screening tool exists thus none have been screened for perinatal risk factors.	a) Execute contracts with two local health departments to continue support of 2 Enhanced Case Managers. b) Coordinate case management team meeting to develop forms and address issues around enhanced case management screening and tracking.	Contracted with Forsyth and Guilford County Health Departments throughout funding period. Each health department hired 2.0 FTE) Family Care Coordinators (FCC) to coordinate case management to women during the interconceptional period. Forsyth County Health Department faced recruitment and retention issues in the early years. However, this was stabilized and the current FCC has been in position since 2002. The other health department has had the same FCC continuously since 2001. Both FCCs have extensive background in family case management. During the project period, 2002 through 2004 there were a total of 5,608 women screened at pregnancy close-out (within the 60 days postpartum period). Only a small proportion, 381 of the 5,608 screens, was incomplete (usually due to client moving out of service area). Of the completed screens 1903 or 36.4% were positive. A set of four forms were developed in 2001-02 for use by the Family Care Coordinators (FCC) when they provided postpartum services to women in the interconceptional period. • *Screening and Referral Form* • *FCC Intake Log* • *Month-at-a-Glance* • *Family Tracking Form*

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Case Management and Interconceptional Care Objectives		
CM 2: By 5/31/05, increase by 10% the proportion of high risk postpartum women and their infants who receive needed services (family planning, child health). Baseline:	a) Provide community outreach and education on the importance of early and regular prenatal care to women of childbearing age. Outreach and education to include information about WIC and other health and social support programs.	Of those who received a recommendation for further service, the majority was referred for family care coordination and more in-depth assessment or follow-up care. Those with infants having risk factors were referred for child service coordination (14%) and a small proportion was referred to other (specialized) services such as substance abuse treatment programs or mental health.
CM 3: By 5/31/05, increase by 10% the proportion of participating infants who are age appropriately immunized. Baseline: 57.9% of infants were age appropriately immunized in 2000.	a) Provide community outreach and education on the importance of age appropriate immunization. b) Provide health education and training to program participants, family members, and the general community around immunizations.	During 2001 – 2004, 71.75% of project area infants were age appropriately immunized. 2001 – 68.9 2002 – 70.0 2003 – 73.0 2004 – 76.0
CM 4: By 5/31/05, increase by 5% the proportion of pregnant women in the target counties who initiate prenatal care in the first trimester of pregnancy. Baseline: 88.0% of the women in the project area who gave birth during 1999 – 2001 entered care during the first trimester.	a) Provide intensive outreach to women of childbearing age and their families	Of the women in the project area who gave birth during 2001 – 2004, 87% (39,010) entered prenatal care during the first trimester. African-American females were more likely to begin prenatal care after the first trimester than White females (82.7% versus 91.7%).

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Health Education and Training Objectives		
HE1: By 5/31/05, at least four foundational Cultural Competency training and five enhanced African-American cultural competency trainings will be provided to targeted service providers. At least 85% of trained providers will report a significant increase in knowledge and skills regarding cultural competence.	a) Coordinate with entire NC Baby Love Plus Program and Office of Minority Health and Health Disparities to provide foundational and enhanced cultural diversity training sessions.	Cultural competency training was offered on an annual basis to providers in local health departments and community-based organizations. In particular, providers that provided case management services to women and infants were targeted for training. Five foundational (basic) and one African-American cultural competency trainings were offered.
HE2: By 5/31/05, there will be 10 churches trained in the MOH	a) Recruit churches to participate in Ministry of Health training b) Provide technical assistance and support to trained churches to help in building MOH	Twelve churches participated in TBLP Ministry of Health training and have maintained active health ministries. The Regional Network Manager provided quarterly, individual technical assistance to the churches in order to enhance their program planning, implementation, monitoring, and evaluation capacities. An annual skill-building meeting was also held for the churches.
HE3: By 5/31/05, 75% of targeted providers (MCCs, CSCs, and ECCs) will have received training on proposed topics. At least 75% of trained providers will report an increase in knowledge and	a) Conduct needs assessment to determine type and level of training. b) Convene team of MCCs, CSCs, and other health and human services providers from local health departments to design the training programs.	Case management staff (MCC, CSC, and ECC) participated in training on postpartum depression, cultural diversity, smoking cessation, gestational diabetes, family planning and contraceptives, and nutrition. Additionally, each county held quarterly continuity of care conferences that address such issues as eating disorders, substance abuse. 61 providers were trained representing 95% of case management staff trained.

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Health Education and Training Objectives		
skills regarding proposed topics.		
Baseline: This is a new intervention. Pre and post-tests will be conducted.		
HE4: By 5/31/05, 120 families will receive Family Leadership Development training. Baseline: 25 families received leadership training in 2000.	a) Convene Family Leadership Development Committee of Regional Consortium. b) Conduct Family Leadership Development Retreat.	Annually, throughout the life of the program, the committee hosted the Family Leadership Development Retreat for consumers and their partners and children. The intended purpose was to give consumers greater confidence and ability to fully participate in the work of the Regional Consortium. Approximately 25 families attended each of the five Family Leadership Development Retreats held during 2001 –2004. Retreat topics ranged from family dynamics to financial management to family and community advocacy.
HE5: By 5/31/05, at least 85% consumer and community Consortium members will report a significant increase in their knowledge and skills regarding maternal and child health and infant mortality issues.	a) Conduct needs assessment to determine type and level of training. b) Convene Training and Development Committee of the Regional Consortium to plan the Annual Healthy Start Training Institute.	The Health Education & Training Subcommittee of the Regional Consortium planned and implemented an annual continuing education conference for consumers, community members, health and human service providers – Annual Healthy Start Training Institute. This was a collaborative conference with the Health Education & Training Subcommittees of the *Eastern NC Baby Love Plus* Regional Consortium and the *Northeastern NC Baby Love Plus* Regional Consortium.

Project Period Progress Report		
Project Period Objective	**Strategy and Activities**	**Barriers and Accomplishments**
Consortium Objectives		
CO1: By 5/31/05, 90% of Consortium members will be active members. Active is defined as having attended half of the meetings or activities.	a) Provide childcare and transportation to meetings and other training events for consumers and their family	Transportation was continuously addressed to ensure consumer and community member participation in Regional Consortium activities. Both childcare and transportation services were provided as requested. As meetings are held in the evening, meals were also served. Members also received training to update their knowledge and skills related to perinatal health issues. At the end of the project period, over half (54%) of the members were active (attending at least half of the meetings of the consortium).
CO2: By 5/31/05 consumers will comprise 50% of the consortium.		At the end of the funding period, 25% of the overall membership of the Regional Consortium was either consumers (22%) or other community members (3%). In response to low consumer participation, a Consumer Advocate position was created in December 2004. This position is responsible for recruiting program participants and other members of the target population. The primary purpose of this position is to represent the interest of the local community from the consumer perspective.

B. Mentoring and Technical Assistance

While TBLP did not participate in mentoring site visits, they did participate in a reciprocal mentoring relationship with Healthy Start Corps (sister Healthy Start project). There were numerous phone and face-to-face visits with the project director and staff of Healthy Start Corps. There were annual partnership development conferences, "Building Bridges," jointly sponsored by NC Baby Love Plus (Eastern, Northeastern, and Triad Programs), Healthy Start Corps, Healthy Beginnings (NC's minority infant mortality prevention program).

TBLP also collaborated with the NC Fatherhood Development Advisory Committee and others to sponsor the "Men Are Nurturers, Too! (M.A.N.2) Community Collaborative Conference. Each year, the Regional Consortium selected a father-of-the-year who was recognized at the annual conference along with his family.

NC-TBLP in partnership with the Regional Consortium provided technical assistance for consumers, community members, and local partners, including local health departments, community-based organizations, and health and human service organizations around a variety of issues. The most notable of activities was the Annual Healthy Start Training Institute. The Training Institute is a skill-building conference for consumers, community members, and health and human service providers on family and child health issues. The Training Institute was the opportunity to bring all partners together to discuss issues around perinatal health and community development. A full-scale children enrichment center was erected at the Training Institute so that the entire family could participate in the program. Approximately 400 adults and 100 children participate in the annual event.

Consumer participants received specially designed training around family leadership. The Family Leadership Development Committee of the Regional Consortium identified the need to provide a smaller skill-building workshop for consumers around leadership, communication, and program ownership. Annually, throughout the life of the program, the committee hosted the Family Leadership Development Retreat for consumers and their partners and children. The intended purpose was to give consumers greater confidence and ability to fully participate in the work of the Regional Consortium. Approximately 25 families attended each Family Leadership Development Retreats.

V. Project Impact

A. Systems of Care

1. Approaches Utilized to Enhance Collaboration

One of the early-identified problems was lack of community involvement in decision-making processes. The Triad Regional Consortium was viewed in part as a vehicle for ensuring community and especially consumer involvement in decision-making aspects of the project. Regional Consortium by-laws stipulated consumer involvement in all policy and decision-making activities of the Regional Consortium. The Regional Consortium was continually involved in the development of the program, including the inclusion of activities to develop within the program's budget.

One of the most notable activities supported by the Regional Consortium was the erection of the Community Subcontracts (mini-grant) program. The program was housed within the Regional Consortium to also ensure a regional versus a state focus on the program and to ensure community involvement and ownership. The program was designed to empower the Regional Consortium in the decision-making aspects of the project, to build and maintain interest in the program, and to provide an opportunity to see immediate, tangible benefits of the program. Relationships were forged through community subcontracts with health and human service organizations, faith, social, and civic organizations, and community-based organizations in the project area that have remained throughout the life of the program.

An added goal of the community subcontracts program was that it helped to identify and support sustainable infrastructures in the project area communities. The TBLP community subcontracts program targeted community-based and public organizations with strong roots in minority communities and supported them in implementing innovative approaches to infant mortality prevention.

Prior to the annual grant application deadline, a pre-application workshop was held for prospective applicants. Information about the TBLP Program was presented and the Request for Applications was distributed. See Attachment C for a copy of the RFA. Prospective applications also received step-by-step instructions on how to complete the application form and were given the opportunity to meet one-on-one with NC BLP Program representatives to review their project ideas and ask questions.

At the 2001 issuance of the RFA, 15 agencies responded to the grant announcement and their funding requests totaled almost $165,451.00. A Grant Application Review Committee consisting of seven members of the Regional Consortium Community Subcontracts committee reviewed and scored each grant application and selected seven proposals for funding. Seven agencies were awarded funding. Awards ranged from $2,802 to $15,000 and totaled $56,474.

In 2002, eight organizations applied for funding with awards requesting a total of ($107,150 total requests). Five agencies were funded for a total of $51,500. The projects provided services for pregnant and parenting women ranging from group support, health education and training, and coordination of prenatal care for non-Medicaid women.

In 2003, eight organizations applied for funding with awards. Four agencies were funded for a total of $51,500. The projects provided services for pregnant and parenting women ranging from group support, health education and training, and coordination of prenatal care for non-Medicaid women. These four organizations were refunded in 2004 with a total of $65,868 in grant funding.

2. Structural Changes

All TBLP contracts mandated consumer involvement in all decision-making efforts, including the hiring of staff and development of policies. Additionally, contracts stipulate the provision of culturally appropriate family-friendly services. Local health departments Agreement Addenda have such wording included:

- Coordinate with the Triad NC Baby Love Plus Program Manager in the selection of program staff and include local participation (consumer and community) in selection of program staff. Staff must meet qualifications as set forth by the NC Baby Love Plus Program.
- When hiring Baby Love Plus staff, including Network Liaisons, Community Health Advocates and Family Care Coordinators, include a local consumer on the interview team as well as a representative from the Division of Public Health's Perinatal Health and Family Support Unit. All staff must meet the minimum qualifications set forth in the attached position descriptions.
- Adopt family-friendly policies and procedures (especially in regard to childcare and transportation) to support consumer participation in local Baby Love Plus activities.
- Establish local task forces to a) assess policies and procedures for tracking and following up on missed maternity, family planning and well-child appointments, b) develop recommendations for improving tracking and follow-up systems, and c) advocate for systems changes.
- Mobilize community stakeholders to engage in collaborative efforts to improve maternal and infant health through a regional community-based, consumer-driven coalition.

3. Key Relationships

The WCHS and hence TBLP networked with and maintained collaborative linkages with a wide range of state and local service providers and resource systems to plan and implement perinatal health initiatives in the project region and statewide. Additionally, the Triad Regional Consortium participants included a variety of social, civic, faith organizations as well as a host of health and human service organizations and educational institutions. In addition to the two local health departments, active collaborative partners included:

- County Departments of Social Services
- Faith organizations (local and statewide)
- Head Start
- Community Development Corporations
- Local Mental Health Agencies
- Smart Start[2]
- First Start[3]
- March of Dimes

4. Impact on the Comprehensiveness of Services

Through the work of the Community Health Advocates and Network Liaisons, relationships have been fostered and/or strengthened with the local Departments of Social Services, private providers, and other health and human service providers.

Another positive impact of the program has been the fostering of intra- and inter-agency collaboration. TBLP had a strong hand in the local health departments maternal and child health programs working in concert with each other. Even within the health departments there was

[2] Public-private initiative for children age 0 – 5 to prepare them for school through the provision of childcare, health services, screening, and other wrap-around services

[3] Pre-school readiness initiative within the NC Department of Public Instruction.

limited collaboration between programs with similar focus. TBLP program with its various integrated models was a strong impetus for working as a team.

As TBLP was a regional program, it also fostered collaboration between the two project health departments. Local program staff joined forces to work on a number of initiatives. Mainly the two departments joined forces around issues of community outreach. Additionally, the case management teams from the two health departments met to help the state team develop forms, policies and procedures for the interconceptional care component of the project.

5. Impact on Client Participation in Evaluation

The evaluation team worked with the Regional Consortium to identify the community needs and the target communities. The evaluation team met with the Regional Consortium on a quarterly basis to gain input into the evaluation activities and to gain input about community changes that affected the program. Regional Consortium members also participated in community surveys. The results of the surveys showed the need to:

- Intensify community outreach around infant mortality issues and perinatal services
- Amplify consumer voices in overall program development
- Collaborate more with community leaders

B. Impact to the Community

A common vision developed amongst consumers, community members, and agency representatives in regards to addressing infant mortality and improving the health of mothers and babies. In consumer, community, and consortium surveys, participants cited common goals and missions around services and support. The Regional Consortium adopted a vision statement at the beginning of the program. That vision spoke to the sentiment addressed by survey participants.

Babies will have a healthy start in life by:
a) being born to parents who have carefully thought about and are prepared for the responsibilities of parenthood and into families that will be loving, supportive, and nurturing;
b) living in communities that embrace and promote concepts of family, community support, and love; and
c) having access to essential health, social, economic, and environmental resources.

Making Room at the Table

Agencies and organizations had limited experience working with consumers before TBLP. The program was an opportunity for agencies to recognize and respect the skills and abilities of consumers. Initially, the agencies had to be coaxed to include consumers at the decision-making

table. As time progressed with the program, the same agencies that balked initially understood the immense benefit to including consumers in decision-making activities.

Employment Opportunities
The outreach staff has been the keystone of program success. The CHAs were seen as the first and integral step in recruiting and retaining women and children in health services. The value and ability of the outreach workers can best be seen in their work over the past years. Throughout the funding period, the CHAs were involved in a number of traditional and innovative approaches to community outreach. TBLP identified more than forty different types of activities that the CHAs were involved with their community outreach efforts. Throughout the project period, the CHAs averaged 20,000 contacts annually. In addition to providing intensive community outreach, the CHAs also provide outreach to organizations (civic, social, faith, etc.) in the two project counties to engage them as partners in infant mortality prevention efforts.

TBLP provided funds to the local agencies to support eight (8) full-time Community Health Advocates. Additionally, funds were allocated to support two full-time Network Liaisons to serve as local project coordinators and two full-time Family Care Coordinators to provide case management to women during the interconceptional period.

C. Impact on the State
TBLP is unique in that the grantee agency, Department of Health and Human Services, Division of Public Health, Women's and Children's Health Section (WCHS) is the location of the State Title V program. With that in mind, WCHS took this as an opportunity to strengthen its relationship with its other public health partners. This has included local health departments, and community-based organizations, including civic and faith entities. This has been achieved by several means.

First, staff employed by local health departments implemented the majority of the direct service components, i.e., outreach, prenatal and interconceptional case management. Contracts were initiated with local health departments to hire Local Coordinators (Network Liaisons) and Community Health Advocates (Outreach Workers). These staff members were integral component of this effort. This helped to insure that services were enhanced and not duplicative.

Next, the development of the community subcontracts component broadened the relationship and included new health partners. This was achieved initially by the release of a request for applications process. This allowed community-based organizations the opportunity to apply for funding to support programs that enhanced TBLP effort. Activities have included fatherhood involvement, preconceptional health education, support networks, and case management for non-Medicaid women. The Regional Consortium provided leadership and guidance in the selection of the community subcontracts. Representatives from these organizations attend the consortium meetings and gave updates on program activities, including challenges and successes.

As the Title V agency, WCHS also had strong networks with state Medicaid, the Division of Medical Assistance which included collaboration with statewide Baby Love Program (on which

the NC Baby Love Plus Program was built). This included providing Medicaid Coverage for Pregnant Women, along with the statewide Maternity Care Coordination (MCC) program.

WCHS also collaborated with the state Medicaid program in the implementation of NC Health Choice (SCHIP). NC Health Choice is administered with through the state Medicaid program along with Blue Cross/Blue Shield Insurance. WCHS is responsible for the outreach components of this program. TBLP provided intensive outreach to families to ensure they were aware of and enrolled in the program.

WCHS also continued to strengthen relationships with the Office of Minority Health and Health Disparities (OMHHD). During the funding period, TBLP partnered with OMHHD in the development of *Elements of the Past – Implications for the Future*, the third component of the cultural diversity training curriculum developed by OMHHD. This third component focused on African-American health disparity. This curriculum is now an established part of the state's cultural diversity training program.

D. Local Government Role

The NC Triad Baby Love Plus Program is carried out collaboratively with the local health departments and community based organizations in the two county project area. The local health departments are all part of their local county government system.

E. Lessons Learned

Three main lessons were learned during the original funding cycle and were incorporated into the program design of the 2001 – 2004 funding cycle. The lessons were woven into program and continuously reviewed.

Lesson 1. The community should be involved in training assessment, design, and implementation process.

In order to get consumer and community input, six types of needs assessments were used to determine training needs: Customer Satisfaction Surveys, Focus Groups, Provider Listening Sessions, Program Staff Needs Assessments, Regional Consortium Surveys, and Community Partners Site Visits.

Consumers and community members assisted the evaluation team in implementing many of the needs assessments tools. Consumers and community members were also involved in the program and policy development for the program. TBLP worked to insure that policies were in place with program partners and contractors that required the consumers to be in program and policy development efforts.

Lesson 2. Families should receive training so that they can adequately participate in the activities and planning of the program.

The Training and Development Committee of the Regional Consortium used information from the needs assessments to develop training topics for the bi-monthly Regional Consortium meetings. Training topics incorporated into Regional Consortium meetings focused on women's health best practice issues (family planning, folic acid, HIV/AIDS, smoking, domestic violence, nutrition, immunization, etc.). Local experts provided the training. Information from the needs assessments was also used to plan the Family Leadership Development Retreat and Annual Healthy Start Training Institute.

The Annual Healthy Start Training Institute was a two – three day conference in which program participants, the general community, and providers have the opportunity to learn about issues related to women's and children's health, and have the opportunity to dialogue about community development issues. Consumers and community members were integral to the planning for the Family Leadership Development Retreats and the annual Healthy Start Training Institute.

The Family Leadership Development Retreat was a more intimate training environment for program participants and their families. Retreat participants had the opportunity to learn and practice skill-building around personal and community advocacy and empowerment issues. An average of twenty-five families participated in the annual retreats with training topics covering financial management, stress and anger management, and effective family communication. Those families invited to the retreat had minimal participation with the Regional Consortium beforehand. Since the retreat, they have actively attended meetings and other events. The Family Leadership Development Retreat is a feeder for the Healthy Start Training Institute.

Lesson 3. Providers should receive training so that they are more receptive and accessible to families.

Program staff was able to document the need for customer service training for providers through information received from consumer listening sessions. Project area local health departments participated in a Customer Service Workshops. The workshops focused on visualizing the needs of customers, developing positive response to needs, and establishing a customer service model that works for the individual agency.

Local health department staff and community-based organizations participated in two levels of cultural diversity training. Level one training was foundational training aimed at increasing awareness and knowledge base regarding cultural diversity and its implications for culturally competent service delivery. Level two training was African-American culture-specific training. The training was designed to provide participants with the awareness and knowledge about African Americans and their cultural experiences, thereby better preparing health and human service providers to more effectively address the health disparities that exists between

African Americans and Whites. The training was provided in partnership with the NC Office of Minority Health and Health Disparities.

VI. Local Evaluation

Project Name: NC Triad Baby Love Plus
Title of Report: Impact Report for HRSA NC Healthy Start — Baby Love Plus
Author (s): JL DeClerque, DrPH - Principal Investigator, UNC Sheps Center
Ellen Shanahan, MA – Project Director, UNC Sheps Center

Section I. Introduction

A. Impetus for local evaluation:
The evaluation of North Carolina's Baby Love Plus Program (NCBLP) was a collaborative approach to program evaluation that included a combination of traditional and innovative research strategies. The study design, data sources and field methods established during the first cycle of the Triad NC Baby Love Plus Program provided the foundation for the evaluation. Although the evaluation component was contracted to the UNC Sheps Center for Health Services Research, both the process of its design and the implementation has been done in close collaboration with the state and local NC Baby Love Plus management team, the Regional Consortium, as well field staff involved in its implementation.

B. Brief history of the evaluation's inception and focus:
The focus of the evaluation was on the perinatal systems of care, the services provided to Healthy Start participants and their families, and the health status of those receiving services funded by Healthy Start. However, in addition to the customary tracking of perinatal services in the project counties and documenting numbers of participants served, the evaluation played an active and integral role in providing recommendations to the Triad Baby Love Plus program and staff for continuous quality improvement. By adding several new system-level assessment tools and expanding the range of community surveys, the evaluation team provided rapid turn-around of survey results that were useful for program planning and management. The evaluation team worked closely with the Triad Baby Love Plus management team to review program goals and helped identify new needs voiced by consumers, local providers and program staff. The evaluation team worked closely with state and local staff in the development of the interconceptional care component, designing screening and assessment tools as well as the design and implementation of service tracking. The evaluation used comparison counties and a pre- and post-test approach so that the impact of Triad Baby Love Plus for participant families and systems of care could be assessed. Because the evaluation was also designed to assess community involvement and sustainability of program efforts, it encompasses features of formative, process, as well as outcome evaluation.

C. Type of Study
The local evaluation plan included three distinct, but related components: 1) a target versus comparison area program impact; 2) a program recipient versus non-recipient comparison within the target area; and 3) a community wide assessment in the target area of the sense of ownership and responsibility for the problem of infant mortality and general community wide development

as a result of the Triad Baby Love Plus Program. In addition, all required GPRA data elements were generated as required by HRSA. The evaluation focused on each of the funded components, as delineated by the federal Healthy Start Office. In the NC Triad program, they were Case Management, Outreach Activities, Enhanced Clinical Services, and Consortium Activities

Key Questions/Hypotheses
The following three questions and hypotheses guided the development and implementation of program activities.

Questions

1. Does the Healthy Start Baby Love Plus Program improve birth outcomes (including diminishing racial disparities), health services provision, and service integration in the Guilford/Forsyth target area, compared to a non-program comparison area of the state?
2. Do target area women who received Healthy Start Baby Love Plus special services (care coordination, outreach, and enhanced clinical services) have improved birth outcomes (including diminishing racial disparities), health services utilization, and service integration compared with other women in the target area who do not receive these services?
3. Does the Healthy Start Baby Love Plus Program impact the target community's sense of ownership, responsibility for and understanding of infant mortality problems and poor birth outcomes, as well as impact the target community's development through the activity of regional and local consortia and other community-based activities?

Hypotheses

Hypothesis 1: Community capacity, responsibility for, and ownership of infant mortality reduction efforts will increase during the project period.
Hypothesis 2: Enhanced BLP services will result in more appropriate and more valued service provision.
Hypothesis 3: Birth outcomes in the project area will improve, with reductions in disparities, more rapidly than in comparison counties.

Together, these three hypotheses assess both the expected program impact at the community level, as well as at the individual and family levels.

Section II. Process

A. Key Features of the Triad Baby Love Plus Evaluation

Evaluation was used as a Tracking Tool: Implementation and Outcomes
A core function of the Triad Baby Love Plus evaluation was documenting that the interventions happen as proposed. As such, activities related to each model were tracked and the number of services provided to Healthy Start program participants recorded and summarized annually for evaluation progress reports. As described more fully below, descriptive data for each program participant and aggregate data for the study region were reported on birth outcomes, use of

perinatal services, care coordination and other support services offered through the state's maternity case management (Baby Love) efforts.

Evaluation was used as a Planning Tool

In addition to documenting implementation and outcomes of the Triad Baby Love Plus program, the evaluation assessed key areas for planning and program development. The first task of the evaluation was to work with the Regional Consortium to conduct a *local survey* to: 1) identify where problems are concentrated; 2) examine opportunity gaps for addressing the problems; 3) work with the Regional Consortium to modify or shift efforts to close the gaps; and 4) engage the Regional Consortium in monitoring the problems and the solutions that they have a stake in. In addition to the initial assessment, the evaluation team assisted the Regional Consortium with their Local Health Action Plan, providing Triad Baby Love Plus staff with feedback from periodic surveys and interviews, and reporting on the extent of consumer satisfaction with the scope, quality and availability of services. These data were intended to provide the foundation for effective and continuous quality improvement in the Triad Baby Love Plus Program.

Evaluation was used as a Management Tool

As a management tool for the Triad Baby Love Plus Program, the evaluation was used to assure that activities and services were happening at the level planned. In order to aid with program management, the evaluation team summarized information from administrative data collected on various components of the project. This included summaries of data collected on tracking forms used by Triad Baby Love Plus outreach staff indicating the number of groups reached, number of participants contacted, types of needs that were identified and the number and range of referrals that were made. Management issues related to program priority areas or aspects that needed strengthening were indicated through regular data review meetings with NC BLP leadership staff.

Study Population

The target population for Triad Baby Love Plus was African-American families that included women of reproductive age residing in key zip code areas of Forsyth or Guilford Counties identified as risk zones for poor birth outcomes. The study population for evaluating this program was therefore African-American residents of these counties who were Medicaid recipients for prenatal, delivery, or postpartum care and infants born to them during the study period. The population monitored most closely was women who were enrolled in the State's maternity care coordination program (Baby Love) and who subsequently obtained well-baby care for their infants. Inclusion criteria were resident births listed on State vital records from the study counties whose race was listed as African-American and who had a Medicaid claim paid for maternity care coordination during the period January 2001 through December 2003. Due to a lag in vital records and the need to allow for both gestation time and subsequent morbidity/mortality in the first year of life, a full range of services, birth outcomes and postpartum data will be examined for a subset of women and their infants (i.e., those who delivered between January 2002 and December 2003, a 24-month cohort). However, partial data for all families who participated in Triad Baby Love Plus over the four-year study period are also examined. Preliminary results are included in this report.

Overall Approach and Levels of Analysis

The Triad Baby Love Plus evaluation served several functions and answered questions across multiple levels of the Program. At the most basic level, Triad Baby Love Plus managers and field staff received useful feedback regarding administration and operation of the program on an on-going basis. At the regional level, the perinatal services sector were given useful feedback about the quality of prenatal and postpartum care, client satisfaction with service delivery, perceived barriers to care and suggestions for improving systems of care. At the program level, the evaluation is in the process of measuring the success of the overall program portfolio and of each specific component using process, outcome and impact measures at four levels: community, systems, services and individual.

The following table identifies the various levels of analysis for both target and comparison areas which will be used in the evaluation and will be referred to in this report. As will be explained later, data across all levels of analysis are used to evaluate the program, from secondary data state administrative records for levels $A_{1,2}$, $B_{1,2}$, $C_{1,2}$, $D_{1,2}$, and $F_{1,2}$ (through identifying markers), and from the primary data collection efforts of the state's new program models for levels E_1,F_1, G_1, and H_1.

Table 10
Data Collection Efforts

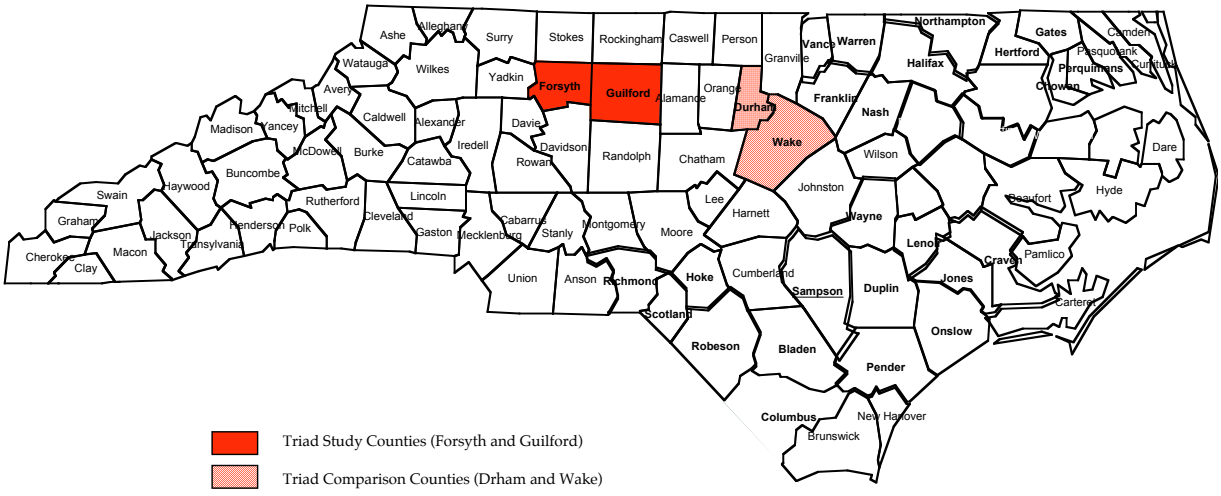
Population Assessed	Measure	Target Area	Comparison Area
Community at large	Total area births	A_1	A_2
Medicaid community	Medicaid births	B_1	B_2
Medicaid community	Medicaid births with care coordination (Maternity Care Coordinators- MCC)	C_1	C_2
Medicaid community	Medicaid births with home visits (Maternal Outreach Workers- MOW, Resource Mothers)	D_1	D_2
Project participants	Outreach participants (Community Health Advocates- CHA)	E_1	E_2
Project participants	Enhanced Care Coordination/Case Management	F_1	F_2
New Project Participants	Enhanced Clinical Services	G_1	G_2
Consortia members, area women, providers, community members	Consortia activities, community ownership surveys	H_1	H_2

The evaluation focused most intensively on levels C and F Medicaid births with Maternity Care Coordination and the enhanced Care Coordination for the Baby Love plus target population. The impact of the Program hopefully should also be apparent at other population and Medicaid participation levels (A, B, D, E, G, and H) within the target counties.

Evaluation Design

The evaluation design involved analyzing birth outcomes and service utilization before and after the intervention both within the project counties and between the project and comparison counties. This was to control for possible secular trends and within-county effects due to parallel efforts in the project area or region. The map below depicts the comparison counties selected for the study (as well as the other regions in NC where Healthy Start programs are operating). The comparison counties were selected based on careful analysis of population demographics, proportion of births to Medicaid mothers, levels of enrollment in the Baby Love Program and prevalence of standard perinatal risk factors.

NC Triad *Baby Love* Plus Program
Study and Comparison Counties



Section II. Evaluation Process

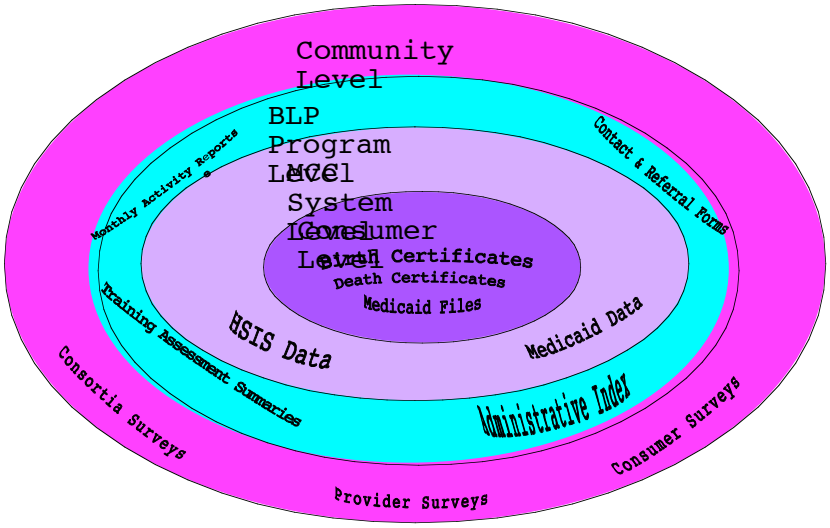
A/B. Data Sources and Methods Used

North Carolina has one of the most comprehensive State perinatal databases in the U.S. It contains sufficient information and detail to examine both broad population trends, and detailed services, by name, of Medicaid participants. Annually, a North Carolina "Baby Love" data file is created that augments the state's birth certificate data files. This file contains person-specific indicators of public program utilization of Medicaid, WIC, MCC, and County Health Department services (plus some summary details about their participation characteristics); and, most importantly with personal program identifiers to link them with the more detailed administrative data systems of those public programs.

A variety of data sources have been used in the evaluation effort. They have been selected (or developed in cases where no appropriate data existed) to complement one another and to meet the needs of each level and group with a state in the Program. Each of the data sources is described in full detail below. In sum, there were three sources of secondary data and three types of primary data that were used. Secondary data sources included: 1) the North Carolina Baby Love File that includes linked vital statistics; 2) the Health Services Information System (HSIS) that includes data on maternity clients and their children who received health department services; and 3) the North Carolina Immunization Registry. Primary data that were collected included: 1) s*urvey data* from the Regional Consortium, local providers (clinical, support and outreach), and Healthy Start consumers (maternity, family planning and well-child services); 2) *programmatic data* gathered on contacts made through outreach, Regional Consortium activities, health education and training, and participant tracking in the postpartum period through family care coordination screenings, assessments, and caseload data; and 3) s*ystems survey data* obtained through interviews with key informants to assess how well perinatal systems of care in the project area are working, and to document changes in interagency relationships.

Detailed descriptions of primary and secondary data sources are presented below according to the following levels of program assessment.

BLP Sources of Study Information



Secondary Data Sources

North Carolina Baby Love File

The North Carolina Baby Love File is a linked vital statistics (birth/death records) file that is merged with individual-level data from Medicaid claims files and local health department maternity and well-child service data. Annually, a Baby Love data file is created which augments the State's birth certificate data files. This file contains data on utilization of Medicaid-reimbursable programs such as WIC and maternity care coordination and includes summary data on participant characteristics. The file also contains program identifiers that can be linked to the more detailed data systems of each Medicaid-funded program. Data are available for selected demographic information, prenatal services, and birth outcomes. Figures are very stable with only small variation from year to year. There is a delay of eighteen months (minimum) before data become available for any given birth cohort. Currently, the 2004 *Baby Love* file is being finalized by the North Carolina State Center for Health Statistics and is expected to be available by November 2006. All needed data is available for both the target and comparison counties, as these are statewide databases.

Health Services Information System

The Health Services Information System (HSIS) contains administrative and service statistics for maternity clients who received at least one prenatal visit at a local (county) health department and also information for their infants if they are receiving HD related services. In addition, the HSIS database provides data on health services provision and integration, including MCC, postpartum women's health, well-baby care, and WIC services. The majority of the required GPRA items, including the case management data reporting measures, needs identified and needs met, and information on postpartum/family planning visits are derived from the HSIS Pregnancy Outcome Summary Report generated by the State Center for Health Statistics for each county. All Triad Baby Love Plus program participants (those enrolled in MCC) receive services from local public health clinics or private providers who accept Medicaid, and are included in these statistics. Data are reported as aggregate county-level data and summarized for the project area.

North Carolina Immunization Registry

The North Carolina Immunization Registry is a relatively new database with county-level aggregate data on vaccinations provided through health departments. The number of vaccines distributed and proportion of children immunized who are current for age can be obtained from this file; however, it is difficult to obtain client-specific data using this registry. Thus, we will report data aggregated by county rather than data linked to individual birth outcomes.

Primary Data Sources for the Triad Baby Love Plus evaluation included the following:

Community Health Advocate Contact and Referral Logs: The Community Health Advocate (CHA) Monthly Contact and Referral Logs (Attachment D) summarize data collected by the CHAs on contacts and referrals made while conducting outreach activities. The CHAs fill out Daily Activity Logs that are utilized to prepare the Monthly Contact and Referral Logs that are then sent on to the evaluation team for data entry and analysis. The evaluation team entered the data on an MS Excel file and were able to provide information on total contacts, total referrals,

reasons for referrals, types of agencies referred to, average number of contacts per month and average number of contacts per outreach worker and for the region.

Family Care Coordinator Tracking Forms

A set of four forms (See Attachment E) were developed in 2001-02 for use by the Family Care Coordinators (FCC) when they provided postpartum services to women in the interconceptional period. The forms included a *Screening and Referral Form* that documented results of the postpartum screens made by each of the case managers on all postpartum Healthy Start participants (*MCC Screening Forms*). Once a client closed out of MCC and received a screening, she was further assessed by the FCC, and information on each assessment was recorded in the *FCC Intake Log* that documented each client's follow-up status. As a management tool, a form showing all monthly activity for each FCC was developed and included the status of each FCC's caseload within any given month (*Month at a Glance Lo*g). To assess progress with each enrolled client, a *Family Tracking Log* was developed to show progress over time during the interconceptional period. Each FCC maintained a *Family Tracking Log* with data on referrals, services needed, and progress made. The data were collected on forms developed by the evaluation staff and processed on a monthly basis into MS Excel databases by the state Baby Love Plus project staff. These data were summarized on a monthly basis and sent to the Sheps evaluation team for analysis and reporting. The forms were developed in consultation with Baby Love Plus and local health department staff involved in maternity care coordination and were adapted to the updated reporting requirements for MCHB regarding interconceptional care.

Regional Network Manager's Report

The Regional Network Manager prepared a semi-annual report on Regional Consortium membership, meeting attendance, committee and subcommittee chairs, member status, and member participation and trainings held throughout the reporting period. Consumer participation was measured through the regional and local area Consortium in terms of the percentage of consumers represented; the similarity of the racial distribution of consumers to that of the overall project area; the percentage of consumers defined as active members of the Consortium; the percentage of consumers holding leadership positions; and the percent of project decisions affected by consumer input. The report also contained month-by-month highlights of Regional Consortium activities. A copy of the Regional Network Manager's report form is included in Attachment F.

Administrative Indices

Straightforward checklists to determine the status of program activities were developed in the first year of the program period for: Regional Consortium, health education and training and program management (i.e., staffing, communication, technical assistance, contracting and leadership). Semi-annually, key staff and partner agency personnel were contacted by evaluation staff to determine if specific tasks were initiated, were in progress or had been completed. The results from these checklists were summed and provided as feedback to Triad Baby Love Plus staff and the Regional Consortium as part of continuous quality improvement efforts. The forms were discontinued in 2003 at the project director's request.

Community Surveys with Consumers, Regional Consortium and Local Area Providers
Annual consumer, consortium and/or provider surveys were conducted over the course of the project, beginning with a survey of the Regional Consortium in the first several months of project start up. A summary of topics included and questions answered by the surveys are included in Attachment G. The surveys were conducted individually, either face-to-face or by telephone, with the following constituents: Triad Baby Love Plus participants, local perinatal health providers and Regional Consortium members. These surveys were developed in conjunction with Triad Baby Love Plus staff and Regional Consortium members for use during the first grant cycle and were field tested and used successfully. The surveys were pre-programmed using BLAISE software onto laptop computers allowing data to be directly entered at the time of the interviews.

C. Measures Used
To assess the community a series of community surveys were implemented measuring the following topic areas: 1) knowledge and awareness of infant mortality; 2) awareness of TBLP program and services; and 3) perceptions about reasons for continued perinatal health disparities. All current Regional Consortium members were surveyed (with a 100% response rate) using the TBLP Community Consortium survey instrument. Subsequent to that, consumers were interviewed in maternity clinics throughout the project area using the TBLP Consumer Survey (Attachment H). Eighty surveys were completed covering Medicaid-clients from public and private clinic settings divided proportionally across the study counties. Again, there were no refusals, and all clients approached and determined to be eligible agreed to participate. A modification of the initial set of surveys was conducted at the request of partners at the Forsyth County Infant Mortality Reduction Coalition in 2003-2004 and was used to interview local consumers, Coalition Board members and a range of community partners involved in perinatal health.

To assess the systems of care pertinent data were extracted from the consumer surveys related to satisfaction with prenatal, care coordination, and postpartum services. Routine administrative data was collected on each maternity patient in local health departments of the study area. Standardized reports generated through the State's health services information system (HSIS) provided valuable in-depth data on intensity of care coordination, continuity of care indicators, as well as use of support services such as transportation and translation. Results from the provider surveys provided information for the annual action plans developed through the community consortium.

To assess/track BLP program activities special forms were developed to track all outreach and referral activities and used by each CHA, Network Liaison, and the Regional Manager. Daily log sheets (Attachment I) were tallied on a monthly basis and summarized onto Monthly Contact and Referral Forms (listed in Attachment J). The forms were forwarded to the evaluation office and entered into an Excel spreadsheet. In 2003, the data reporting process shifted and information was sent to the Data Coordinator in Raleigh for entry and file creation, and final files were sent to the evaluation team for summary and analysis.

To assess participant (consumer) level information vital records including birth and death certificate data were merged with Medicaid and selected health department variables on an

annual basis by the State into a file locally known as the Baby Love file. The evaluation team obtained Baby Love files for 1996 through 1999 (baseline) for all births in the study and comparison counties, and for 2000 through 2004 for program period. This represents the core data to assess program impact on infant morbidity and mortality -- the goal of this program. Detailed birth files for 2001-2003 that provide information on risk factors, service utilization and birth outcomes are available. However, the birth files do not have any information about Medicaid coverage or infant death, and thus have only descriptive information and no outcome or final evaluation information for the true study period, 2000-2005. The final data will not be available for an accurate assessment of program impact until the 2004 birth cohort has had a full 12 months for the potential of mortality and for completed Medicaid claims to be processed. The expected date for availability is November 2006. Data shown are for the pre-project period and baseline/project start-up. Fortunately, the HSIS data collected through local health departments are available more rapidly, and data through 2004 that include information on use of maternity care coordination, selected demographic and risk factors, as well as key birth outcomes is available.

Section III. Evaluation Findings

As described above, the evaluation was designed to assess the effectiveness of the Triad Baby Love Plus Program. Evaluation strategies and data were collected and compiled across the four levels of a) community, b) systems of care, c) program, and d) individual participant levels as discussed below. Results are presented for each level assessed in the evaluation. In some instances, findings were relevant across more than one level; for example, some of the community survey data included feedback from local partner agencies that also informed us about systems of care. In these cases, findings are included in any section that applied.

A. Community Level:

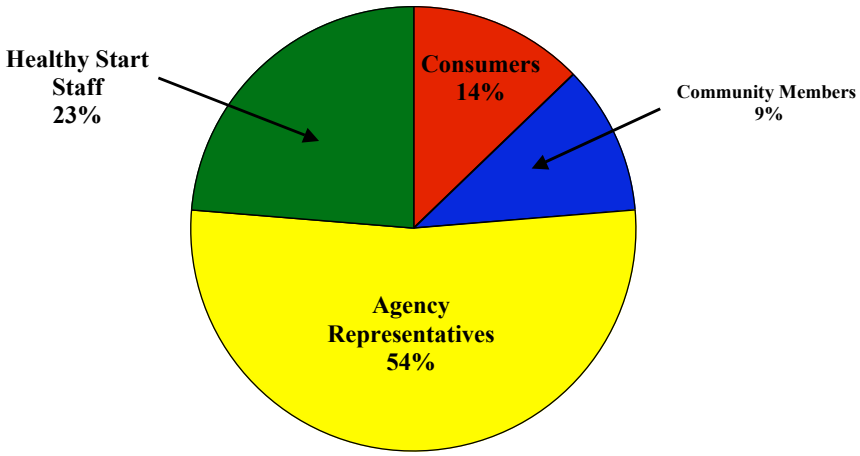
Overview of Consortium

One of the key components of community-level efforts of the Triad Baby Love Plus Program was and continues to be the existence and work of the Triad Regional Consortium. Both counties in the Triad Region had existing coalitions focused on infant mortality reduction or improving birth outcomes at baseline (prior to the TBLP program). In 1999, however, no area-wide Consortium existed. The Triad Baby Love Plus efforts added the development of a regional consortium that covered both project counties, and focused on increasing consumer involvement in the prevention of infant mortality. The Regional Consortium was started in February 2000, with regular meetings and ad-hoc sub-committee meetings.

Since its inception, the Triad Regional Consortium has grown in popularity and developed a regular group of members who participate in activities. There was wide interest in participating from the start with 94 registered members in the first year, and an average of 64 continuing members in subsequent years. There is an active core of 21 members who regularly attend (over half of all meetings), and participate in sub-committees. In 2004, 32 members attended half (or more) of all meetings and in 2003, 41 (of the 64 members) attended a majority of the meetings. In 2004, 22 members of the Consortium received training to update their knowledge and skills related to perinatal health issues.

Subcommittees continued their activities over the project period with an average of thirty Consortium members participating in one or more sub-committees. This represents approximately three sub-committee meetings per member with a range of from one to eleven meetings.

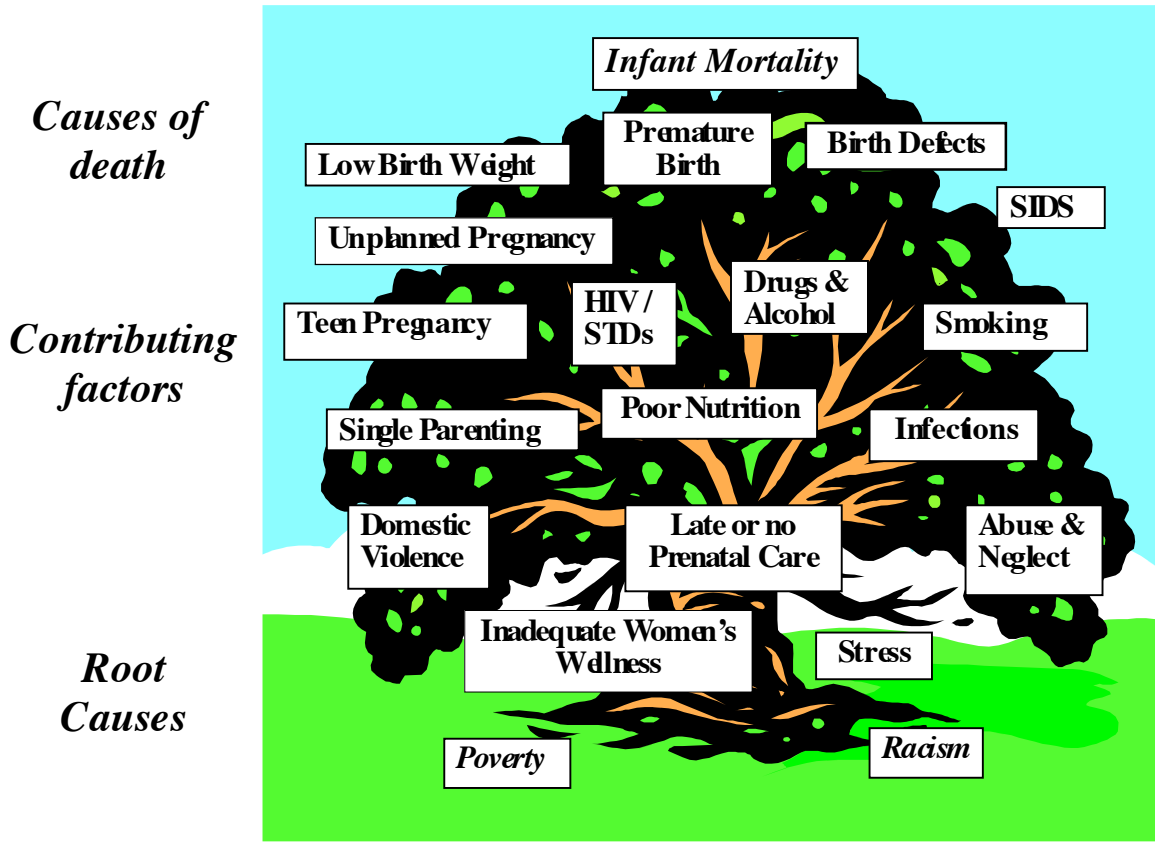
Membership Composition of Triad BLP Regional Consortium
January 2001 through December 2004



Considerable effort went into increasing community and consumer involvement in the Regional Consortium. Triad Baby Love Plus is about halfway to the goal of 51% consumer and community member participation. At the end of the project period, 23% of the overall Regional Consortium membership was either consumers (14%) or other community members (9%). One response to this finding was an effort to create a special staff position dedicated to working with consumers and increasing their involvement. Another goal was to ensure that the Consortium composition was representative of the population it was serving with regards to race/ethnicity. This goal was far exceeded. While the proportion of births in the study area is 34% African American (2001-2003) and between half and 65% of health department maternity clients are African American (2001-2004), the proportion of Consortium members who are African American was 79.0% at baseline and 85.0% at the end of the project period.

Another key area of effort for the Consortium was the planning and development of a local health systems action plan. A sub-committee was formed and leadership provided by the local evaluation team for the initial phase. Results of the sub-committee's work were summarized in a report, "*The Triad Healthy Start Baby Love Plus Consortium, Local Health System Action Plan, Report on Activities*" (see Attachment K). Briefly, the group: (1) reviewed existing reports, local needs assessments, vital records, trend data, and administrative services records related to perinatal health, and conducted a perinatal periods of risk analysis (PPOR) for the region; (2) assessed regional services delivery related to prenatal, family planning and women's health, and (3) conducted a series of "listening sessions" with local providers including outreach, case management, and support staff. The core of the action plan centered around two areas deemed high need: 1) strengthening male support and 2) reducing underlying causes of women's poor

health such as stress, unintended pregnancies, and emotional health. Key members of the Workgroup were also active with the Forsyth County IM Reduction Coalition. They shared their framework for understanding underlying issues and root causes of poor birth outcomes and disparities. It was very helpful in guiding identification of core action plan areas.



Forsyth County Infant Mortality Reduction Coalition updated 11-3-04

Several community surveys were conducted to assess feedback from consumers, providers, and community partners. All members of the Triad Regional Consortium were interviewed as part of the Baby Love Plus Program's Community Survey. Of this total group, 28.0% were Agency representatives or health care providers, 27.7% were consumers or community representatives, and 44.3% were Healthy Start staff members. Seventy-eight percent were Black and all but one was a women. Subsequently, 80 consumers from public and private maternity clinics were interviewed (as described previously). In 2003-04, a special evaluation request was completed for one of the local infant mortality coalitions (Forsyth County) where local OB/GYNs, hospital and public health administrators, clinic managers, and consumers of perinatal health were surveyed to help assess their local strategies and services. A report was issued Spring 2005 and is available upon request.

Key Findings: Community Level Knowledge and Awareness of Infant Mortality
There is a sense of common purpose across all three groups (consumer, agency representatives, community members, and staff) that both the goal and mission are consistently reported as

addressing Infant Mortality (IM) and providing information and services to improve birth outcomes. Almost all members mentioned some aspect of supporting families in need, and almost all understand that the *Plus* in Baby Love Plus relates to enhanced care coordination and support services.

Additionally, almost all the Consortium members suggested that there should be more consumer involvement in the Consortium. Suggestions included:

- Focus more on the issues, and getting the word out about IM risks, prevention and services.
- Let consumers speak more — have a greater voice — keep the doors open.
- Invite more community leaders, then other consumers will come.
- Intensify the outreach. Better equip the outreach workers.
- Do less "listening," and do more action with consumers.

Key Findings: Impact of BLP Consortium and Knowledge of the BLP program

- Overall, Consortium members were positive about the chances for success of the Baby Love Plus Program; the majority (82%) thought it was likely that the BLP Consortium would have a positive impact on the community.
- Consumers who knew of the Consortium said they felt they had at least "some" or "a lot" of input into the Consortium, however only about 15% of consumers surveyed had heard of it.
- Although many consumers did not know details of the program, most knew that there is assistance available to them to get care and where they could go to get help (Health Department Baby Love program). About 25% of consumers associated the BLP program with help accessing maternity services or finding where to go for care.

Key Findings: Community Level Knowledge and Awareness of Infant Mortality

- The majority of Consortium and consumer members considered infant mortality a "very serious issue" even when compared with other social and health problems.
- Almost all (98%) consumers surveyed knew the importance of folic acid and vitamins, and most knew about SIDS and proper positioning of babies.
- Very few consumers (<20%) knew about racial disparities or the excessively high levels of infant mortality in their region relative to the State.
- Almost half of respondents were not aware of low birth weight or prematurity as major factors in poor birth outcomes.

B. Systems Level:

Overview of Perinatal Systems of Care: Views of prenatal care and suggestions for improvement, feedback about maternity care coordination and its efficacy.

Of the 20,821 births at baseline in the study area, 4978 received maternity care coordination, which represents 95% of all the health department maternity clients. As the MCC program is administered from the local health department, data was analyzed for this population to track trends related to the efficacy of MCC care. During the study period, 8,268 women in MCC received a home visit (58.4%), either prenatally or in the postpartum period. MCC assists with a

range of needs from nutrition counseling and food assistance to housing, job training, school enrollment, employment, childcare and transportation. At baseline, the average level of needs being met for health department maternity clients was only 14.9%, which, as a measure of effectiveness of linkages across systems of care, indicated a need for better coordination and follow up of agencies working within the perinatal care system. This was an area that the Consortium's Action Plan sub-committee addressed through its work with improved linkages both within programs at the local health department as well as externally with local neighborhood clinics and special community programs, such as fatherhood initiatives. One measure of this effort was follow-up on missed appointments, especially for family planning visits among those with negative pregnancy tests. Overall, levels and use of prenatal care have not improved substantially with 66% of health department clients and 88% of the general population receiving PNC in the first trimester of pregnancy at baseline and 57.0% of health department clients and 88.2% of general population receiving PNC in the first trimester of pregnancy in 2004. The following key points are summarized from feedback from consumers interviewed in maternity and postpartum/well-child clinics. Knowledge about prenatal care use is good; nearly 98% of consumers and a majority of Consortium members know that the best time to begin prenatal care is as soon as a woman knows she is pregnant.

Key Findings: Views of Prenatal Care

- When asked about nine possible topics that should have been covered in prenatal care, most consumers report remembering coverage of all nine topics (ranging from a low of 74% on baby's sleeping position to a high of 98% recalling mention of prenatal vitamins.
- A majority of consumers report satisfaction with "comfort felt with the doctor"; "adequate time with the provider"; ease of keeping prenatal appointments; and "level of respect shown to them by their maternity providers".
- Although a majority said that race was not an important factor in their being able to access services, many stated that financial status was an important factor.
- Very few consumers say that the race of their prenatal care provider is very important to them (7.5%); most (80%) state that race is not very important to them. In contrast, close to 65% respond that it is somewhat or very important for their provider to be a woman, although a third say gender is not as important as the competence of the provider for them.
- The most consistently negative feedback about prenatal care services related to the high amount of waiting time experienced during maternity clinic visits. Over one-third of clinic clients interviewed stated that waiting time was a significant problem for them.
- Overall satisfaction with prenatal care services is high. Close to 74% of respondents report being "extremely satisfied" with their PNC and another 20% reporting "somewhat satisfied". This was true even for clients who had difficulty reaching the clinic or report having to wait long periods of time once in the clinic.

Key Findings: Recommendations for Improving Prenatal Care

- Issues most often mentioned as being "very important" were: more male involvement (91%), decreased waiting time in clinic (80%), more on-site child care (80%), evening clinic hours (79%), competence of staff (79%), co-location for all perinatal services (79%), and improving transportation (69%).

Key Findings: feedback about Maternity Care Coordination (MCC) and its efficacy.

- Nearly all of the clients (76%) remember being offered the services of a MCC. Of the sixty-one respondents who remember being offered an MCC, 50 (82%) accepted the service. The few that did not choose a MCC stated that it was because they did not see the need, had family support, or were very familiar with the system already and did not think it would help them further.
- MCC Help Provided: Finding out about WIC (96% of respondents) was the number one item mentioned. Also, enrolling in Medicaid (90%) and help with transportation (94%) were very common. Other areas mentioned were finding a pediatrician, making appointments, help with housing, finding maternity clothes, where to get a car seat, how to enroll in Baby Bucks, resolving problems with spouses, help with employment, and general support. Almost all respondents who had a MCC remember talking about WIC, Medicaid, transportation, and childcare.
- Satisfaction with a MCC: The vast majority said they were either very (78%) or somewhat satisfied (12%) even if they reported that they did not get anything from the MCC that they would not have had without them. In many cases having a MCC made a difference in both the prenatal period as well as for subsequent care. For a significant group of women, their MCC is a confidant, who helps them negotiate the system and make hard decisions. Many suggested the need to expand their time with the MCC beyond the 60-day postpartum coverage; this has been accomplished through the enhanced family care coordination service through 24 months postpartum for any participant who screens positive during her postpartum visit.
- Barriers to receiving a MCC/ Suggestions for Improvement: There appear to be very few barriers and those mentioned are specific to individuals. But there were several suggestions from respondents when asked what could be done to improve MCC services. The first suggestion was the need to be able to follow mothers longer (up to two years postpartum) to be able to establish trust, build the relationship with the family, and empower the client. Other comments were that there are not enough MCCs, a lack of commitment on the part of some of the MCC workers, and the need for better training of current cadre of MCCs.

Provider feedback on systems of care

Maternity Health Services: From the original survey of provider-members of the Consortium, only one rated the quality of health services as "poor or "very poor" (in answer to the question of "How would you rate the following areas relative to the quality of health care services?") The items that she identified were: the "level of comfort the doctors or providers provide; the " level of concern shown to clients by nurses;" and "whether the care provided is the same for all clients, no matter what race or ethnicity is and/or no matter how services are paid."

Barriers to Care: In response to a question about the "major barriers to providing the most effective care coordination," the following received the most replies and were identified by half of the respondents:

- Not enough maternity care coordinators
- Trouble establishing relationships with high risk families
- Lack of sensitivity to racial issues
- Recommended Enhancements to Clinical Services

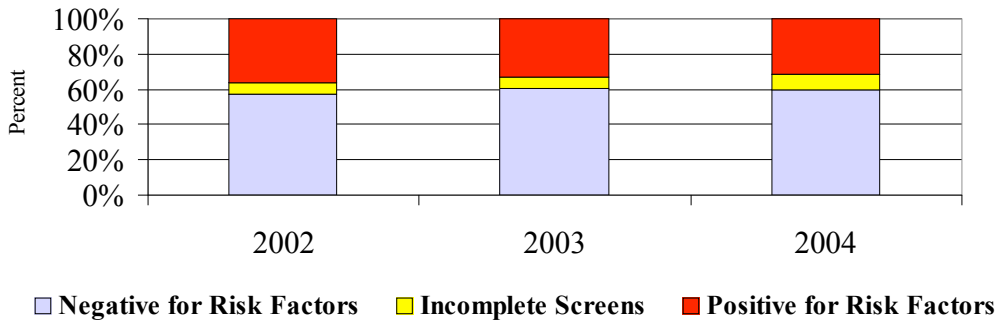
Providers also identified the following as "very important" to enhancing clinical services:
- Availability of evening clinic hours
- More available child care
- Improved transportation/access
- More coordination of services among providers

A notable number of the providers also said the following were "very important"
- More convenient sites
- Broader range of services at each site
- Cultural sensitivity
- Better linkage of health department and other area health services

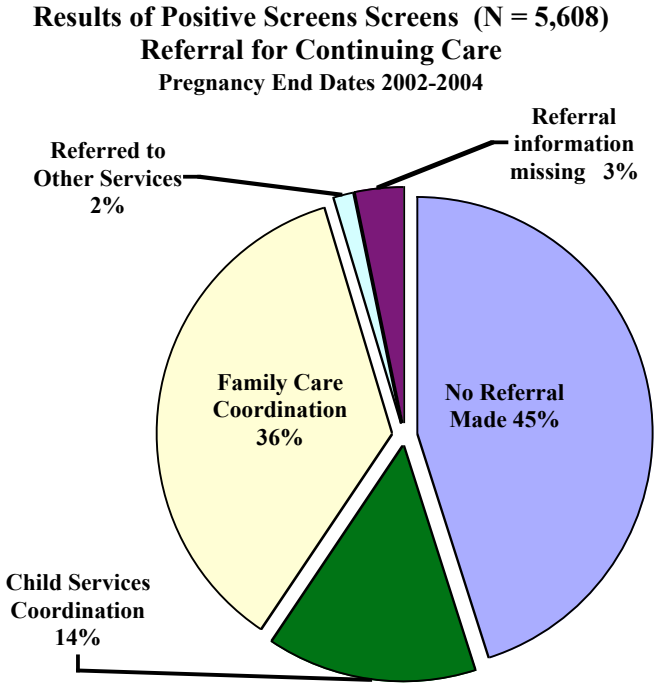
Providers also recommended "shorter waiting times, more flexible hours "; "domestic violence support" and smoking cessation programs to improve prenatal care.

Interconceptional Case Management was initiated in 2001 with full service implementation and patient caseloads for pregnancies ending in 2002. As described in the narrative above, clinical social workers trained in interconceptional care risk factors and service needs received screenings from MCCs for all the prenatal clients who had been in care coordination. As this was a new service that was added through the BLP program as a result of identified gaps in service delivery, there are no pre-program or baseline data for comparison purposes. During the project period, 2002 through 2004 there were a total of 5,608 screens for MCC postpartum clients whose termination of pregnancy dates were January 2002 through December 2004. Women were screened for pregnancies resulting in low birthweight or pre-term delivery, short birth interval, inadequate prenatal care, or that involved high parity for age, high spontaneous or therapeutic abortion burden, social service related risks, such as abuse or CPS, chronic or acute medical conditions, or any psychosocial or other risk the MCC deemed appropriate for further assessment and tracking through extended care coordination. As is shown below, a small proportion 381 of the 5,608 screens were incomplete (usually due to client moving out of service area), and out of the screens that were completed, 1903 or 36.4% were positive. Numbers and trends were consistent over the three-year period.

Results of Post-partum MCC screens
(N = 5,608)
2002-2004



While most screens were negative, there were 1903 women who had at least one positive risk factor. The majority of risk factors identified were related to the infant status (preterm, low birth weight, medical condition causing hospital discharge delay, or other factors that would qualify the family for eligibility into Child Service Coordination (case management). Many (45%) of the clients with positive screens, upon further assessment by the MCC, did not require referral for subsequent service. Rather, these clients were determined to be either well managed through their regular primary care provider or else already had their needs met through other means. The results of the positive screens and the recommendations made for referral were as follows.



Of those who received a recommendation for further service, the majority was referred for family care coordination and more in-depth assessment or follow-up care. Those with infants having risk factors were referred for child service coordination (14%) and a small proportion was referred to other (specialized) services such as substance abuse treatment programs or mental health. The full data base that includes tracking information for clients over the two year postpartum period is under construction and once available, will provide information about subsequent pregnancy, management of risk factors, and client and family health indicators over time.

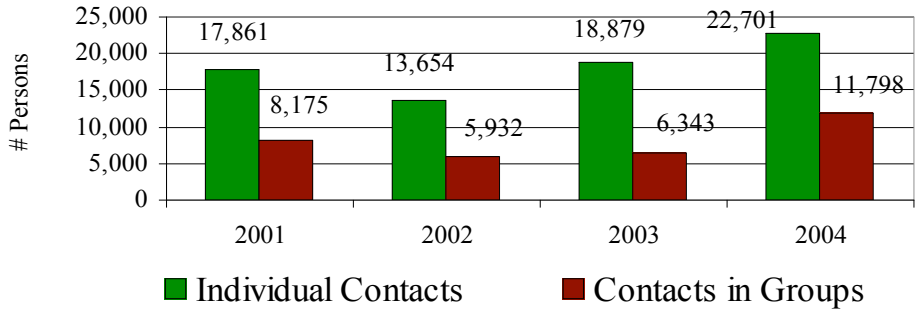
Program Level**:** ***Outreach Services, Referral Services***

Outreach: The Triad Baby Love Plus intervention counties hired and trained Community Health Advocates (CHAs) between January and May of 2000. The outreach team was fully staffed and operational at the start of the project period. The main outreach activities were directed towards individuals in the targeted areas, but CHAs also spent substantial time contacting people in groups, such as Health Fairs, Festivals, and baby showers. Individual contacts were defined as persons with whom CHAs have personal level communication, including information about

Baby Love Plus services. Dropping off literature at someone's doorstep or handing out flyers at health fairs did not constitute an individual contact.

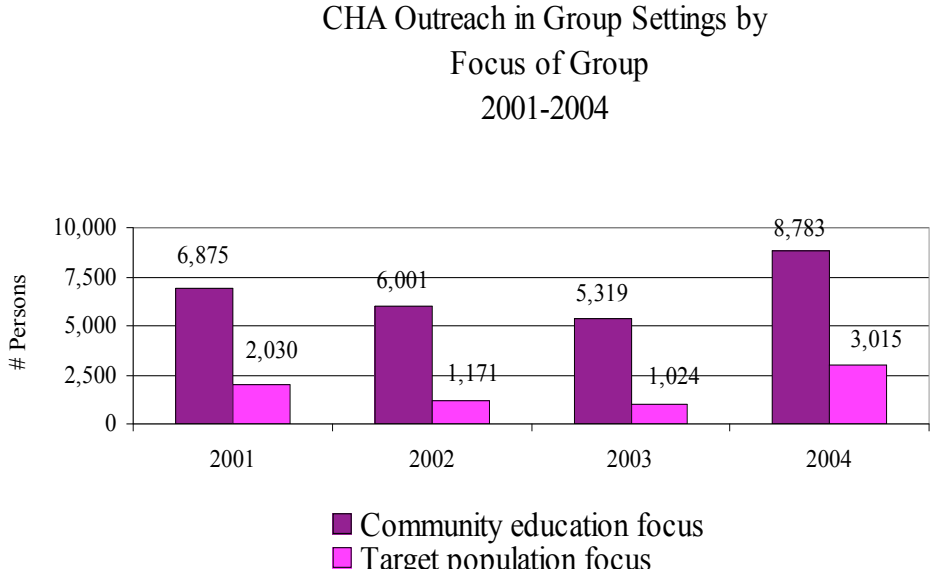
A group contact was an organized or pre-planned event of more than one person where general information about TBLP was given. A health fair or festival-type event, for example, was considered a group activity. When recording the number of group contacts, TBLP staff tracked the number of people who stopped by a table, or people who picked up a brochure at a health fair. They did not count the total number of people attending a health fair or neighborhood-wide event. During 2001 – 2004 the staff made approximately 74,000 one-on-one contacts with women of reproductive age in the target communities, and another approximately 32,000 contacts with other individuals in the community through group meetings. The total number of people reached through Baby Love Plus outreach efforts in this time period was over 106,000 individuals or an average of about 2,200 people per month.

Persons Reached by CHAs
by Individual or Group Contact
2001-2004



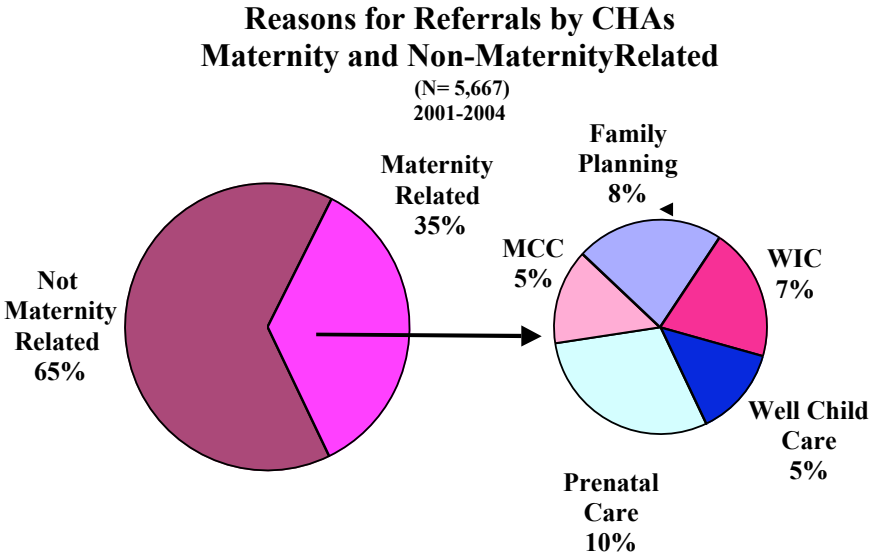
The overall effort in terms of numbers of people reached by TBLP staff is impressive, representing much work across many community groups, settings, and events. Individual level contacts are the main way that CHAs work in their communities to reach potential clients. However, a significant number of people are reached through group events — almost half to a third again as many contacts every year. Over time, both the number of individual and group contacts has increased, despite the staff numbers remaining constant. A shift in the focus of the program away from a general community approach to a more targeted and intensive approach has encouraged CHAs to provide outreach to women of reproductive age likely to have a need for perinatal-related referral. The numbers reached through groups that have a general community base versus groups whose focus is on the program's target population — social gatherings such as baby showers, home parties, and ladies church functions is in line with the revised program goals. While the proportion of individuals contacted who are reached through targeted, social gatherings (pink bars below) is still only a fraction of the overall outreach in group settings, their strategies and approaches are gaining popularity and resulting in higher

numbers of contacts. The real key is whether a contact results in a successful referral; that is, one that identifies a new client who will enroll as a program participant.



Referral for Services: Of the total number of individual (primary) contacts made, 4,422 (6.0%) were referred for some follow-up service. This represents over 1,000 referrals per year. As the emphasis of BLP outreach is to identify high-risk women and refer them to appropriate care, this is potentially quite positive; however the *proportion* of only six percent is quite low and has been an area of emphasis and concern. Referrals are not limited to pregnant women, but to postpartum women and their newborns as well. As is shown in the graph above, the proportion of contacts made by CHAs in general community education far outweighs that of more-targeted individual-level intensive outreach. This is being shifted in the new program period and it is hoped that the results will show a reversal in trends in the near future, where outreach results in more targeted contacts and referrals into maternity-related care.

The breakdown for referrals made is shown below. The group of individuals reached through direct (individual not group) contact with CHAs that were given a referral was only 6%, and even though this *number* was fairly high (4,422), only a small proportion of these referrals was for a service related to perinatal care — either prenatal care, maternity care coordination, WIC, or family planning. Only ten percent of all the 4,422 referrals were for prenatal care, and only five percent were made to Maternity Care Coordination. Other referral needs of clients include Department of Social Services (DSS, 7%), Family Planning (8%), Well-Child Care/Immunizations (5%), and WIC (7%). Some of the needs included in the "other" slice of the pie below include housing, crisis control, day care, and transportation. Less than six percent of primary contacts (i.e., outreach to women of reproductive age in the target communities) were given any kind of referral, indicating the need for more and better targeting of outreach efforts.



Memory of Outreach Workers in Neighborhoods

In the early community surveys, there were some respondents from the consumer portion (17.5%) who remembered seeing a CHA in their neighborhood (house party) or having a CHA visit them. This was excellent considering consumers were initially surveyed after only four months of outreach activities. Subsequent client surveys in Forsyth County revealed that up to a third (33%) of maternity clients interviewed were familiar with BLP outreach workers and among those half had been visited in their homes during their pregnancy by a CHA.

Key Findings: Recommendations for Improving Outreach

- Activities that respondents report as being most useful for outreach workers to do in the future are: continue going door to door, provide help with making appointments, do more presentations for lots of different groups (like local businesses or hair salons). Commercials also seem to be effective, with 40% of respondents mentioning they remember seeing one.
- The barriers people mentioned are ones that are difficult to address, such as finding the hard to reach families, reducing unrealistic caseloads, and having better coordination with referral agencies to know if families have been able to access the services they need.

Participant (Individual) Level

Overview

Data is available on the Triad's Study Counties (Forsyth and Guilford) and the Triad's Comparison Counties (Durham and Wake) for the years 1997-2000. Since Triad Baby Love Plus Program funding and related activities, such as the hiring of outreach workers, etc. did not actually begin until Spring of 2000; the 1999-2000 data will be referred to as "Early Study Period" while the 1997-1998 data will provide a "baseline" point of reference (Baseline). The Program Baseline data will, therefore, correlate more closely with the Consumer and Consortium survey results discussed above.

The "Study Period" data is partially released and included whenever available, but certain trends are clear in the Triad and especially for those in maternity care coordination (MCC), particularly when compared with those who received "no MCC." While we have collected data for the comparison counties, we will fully analyze them when we present our outcome data in 2006 (see note above under evaluation section methods.) We therefore limit our scope to study counties for this report, showing data for the two time periods, baseline and early program.

Demographic Trends

In the Triad study region, there were approximately 10,000 births a year based on birth certificate data, a third of which were born to African American women. Close to a third of the area's births were to women who were clients of their local health department. The table below compares key characteristics local health department clients are more likely to be black (52% versus 32%), Hispanic (14% versus 11%), less educated (60% versus 22%), unmarried (79% versus 35%), have later entry in PNC and lower number of PNC visits, and slightly higher rates of low birth weights (10.9% versus 9.7%). Local health department clients in both the baseline and study periods have slightly lower levels of very low birth weight and pre-term birth than the general population.

Table 12
Demographic, Service, and Birth Outcome Data for BLP-Triad Study Area

	Health Dept. Maternity Records			NC Birth Certificate Data	
	Baseline✷	Early Program❁	Program	Baseline	Early Program♦
Indicator (%)	n = 6,335	n = 5,238	n=14,325	n =19,464	n = 20,821
Age <18 yrs	13.0	12.5	15.0	4.4	4.2
Black	55.0	52.0	56.1	31.6	31.9
Hispanic	10.0	13.7	9.2	7.7	11.0
<12 yrs educ	53.8	59.8	--	20.1	21.7
Unmarried	78.3	79.0	--	34.0	35.4
Early PNC	65.4	66.0	45.1	86.9	88.0
PNC visits	8.9 visits	8.8 visits	--	13.6 visits	13.5 visits
LBW	10.6	10.9	10.2	9.3	9.7
VLBW	2.0	1.9	1.9	2.1	2.3
Preterm	11.0	11.3	--	11.5	11.9

✷Baseline covers years 1997 –98 ❁ Early Program covers years 1999 – 2000 ♦Program Covers years 2001 - 2004

According to the 1999-2000 regional data, the trend from baseline to the early program period has been toward:

- a less educated population: an increase of 13% for the less than high school group over time;
- a higher percentage of Hispanics (increase of 37% initially), but decreasing in 2001-2004,
- an increase (of 50%) for the non-English speaking clients,
- a lower percentage of whites (decline of 13%) and Blacks (decline of 5.3%),
- fewer married women (a decline of nine percent).

Risk Factors: *poverty, parity, birth interval, weight gain, smoking, previous death*

Using NC Baby Love files that merge individual level birth and death certificate data and include information on Medicaid status as well as utilization data for selected maternity services, we have data for 1996-97 as pre-program (baseline) and 1998-99 as early program periods. The prevalence of risk factors for women with and without MCC is shown in Table 13. Note that our

definition of program participant for TBLP is African-American women who received MCC services.

Not surprisingly, the women in MCC (compared with the same group who were not enrolled) had a higher prevalence of risk factors, most notably previous history of infant death and higher likelihood of having a short birth interval. Both groups of local health department African American Medicaid clients (MCC and no MCC) had high rates of smoking during pregnancy (17.1% and 21.0% respectively) and relatively high rates of inadequate weight gain (<15 lbs.). The mean parity of two (slightly higher for the non-MCC women) is very high considering the average age of both groups is 23-24 years. Almost all (88% or more) the BLP participant women are in the group that is either at, or below 100% of poverty, and another 10% are in the 185% or below poverty group, which is relatively unchanged from the baseline to early program time periods.

Service Utilization: *Late/no PNC, early PNC, Kotelchuck Index, mean # PNC visits, MCC, use of other related services (WIC and well-child care)*

Data relating to care coordination are available for those with live births during the baseline and early study periods. For the study counties, the average numbers of births was 6,335 for the baseline years, and 5,238 for the early study period years. Eighty-seven percent of the women with live births were in MCC at baseline and by the early program years, 95% were receiving MCC services. We present service utilization figures and birth outcomes for the study participants according to whether they were in MCC or not, based on our hypotheses that study participants would have improved service utilization and birth outcomes based on their participation in an enhanced Baby Love program. While we await data for 2004 to make final assessments of program outcome and impact, we can begin to see trends by examining baseline and study period figures.

Generally, as would be expected, the women in MCC received more care and better services than women who were not in MCC. Since the program was just beginning in 2000, most of the data were stable from baseline to study period for those clients receiving maternal care coordination (MCC) in the Study Counties. There are some changes however, in the "no MCC" population in the study counties, as noted below.

For those in the Study Counties,

- The average number of prenatal visits was 10.5 at baseline and 10.2 during the study period for MCC, compared with only 7.4 and 7.3 for those not receiving MCC, and
- The percent in care at 14 weeks gestation was 66% at baseline and 68% during the study period for MCC, compared to 59% in care at baseline and only 35% in care during the study period for those with no MCC.
- A much smaller proportion of MCC clients had inadequate PNC (Kotelchuck Index) compared with the no-MCC clients at both baseline and during the study period (18.3 versus 25.9 and 17.3 versus 21.2 respectively).

As can be seen, those in MCC fared better in the study counties than those who were not in MCC. Although the MCC numbers for "average number of prenatal visits" are similar in both

the Study and Comparison counties, the Study counties have been significantly more successful in getting women into care in the first trimester.

WIC: At this time, no clear trends have emerged for those in MCC receiving WIC because the overall percentage increases or decreases are generally small for both the study and comparison counties. For those not receiving MCC, however, there are more substantial changes in WIC services between the two time periods. Actual WIC percentages follow.

For Study Counties:

- The majority of MCC clients was receiving WIC at baseline (97%), and continued to do so (96%) during the study period. While for non-MCC women, 97% received WIC at baseline and 100% during the study period;
- The majority of MCC infants received WIC at baseline (92%), and 90% received WIC during the study period. While for non-MCC infants, 81% received WIC at baseline, and only 48% did so during the study period.

Well Child Care: Clearer trends appear to be emerging for infants receiving well-child care. In the program counties, greater percentages of infants are receiving well-child care at baseline for *both* those receiving MCC and of those not receiving MCC. This trend is in sharp contrast to the *decline* in percentages of "MCC" *and* "no MCC" infants in the comparison counties who received well-child care:

- For the Study Counties, the percent of MCC infants receiving well child care increased from a baseline level of (94.8%) to project period (95.6%), and for no-MCC clients well child care increased from 13.0% to 55.4% (but total numbers are small).

In contrast, for the comparison counties, both the MCC and no-MCC infants receiving well child care dropped from baseline to study period. (For MCC, the percentages went from 100% to 90% by baseline; and for no MCC, the percentages went from 6.0 to 5.0 %.). *Birth Outcomes* (Low Birth Weight [LBW], Very LBW, Prematurity, Infant death): As indicated in the Care Coordination section above, the total number of live births decreased in the Study Counties from baseline to study period. The number of women with live births actually decreased by 10% for those in MCC services, and by 68% for those not in MCC services. The significant difference between the number of women with live births in the MCC and no MCC populations apparently reflects the shift of women from no MCC to MCC as more services became available. Ironically, this shift of the most vulnerable women into maternal care coordination at program's baseline (overall a very positive trend) seems to result in a slight improvement in the birth outcomes for non-MCC women, who by the year 2000 tend to be the *less* vulnerable population.

Outcomes for program counties:

- The percent of LBW babies for those in MCC remained unchanged from baseline to study period (11%); while the proportion of LBW babies for no MCC (a small total number) actually decreased from baseline (10%) to study period (4%);

- The percent of babies born prematurely (37 weeks or less) remained unchanged from baseline (11.5) to the study period (11.6) for those in MCC; for those not receiving MCC, the percent decreased from baseline (10.2) to study period (7.0); and
- The number of infant deaths is disproportionately high for the entire local health department population (75 per 3787 at pre-program and 63 per 3861 at baseline which represent IMRs of 19.8 and 16.3 respectively). The death rates for the MCC group are consistently lower than for the non-MCC clients, which support the hypothesis that Baby Love and BLP services are likely to have a positive impact, despite the tendency for the higher risk women to be enrolled in MCC. The death rates for the MCC clients at baseline and during the study period were 19.5 and 15.6 respectively as compared with those for the non-MCC women: 20.8 and 19.4.

We hope to see improvements in service utilization and birth outcome indicators, especially for those enrolled in MCC. We learned that the majority of the Medicaid women, who are getting into PNC late or not at all, are those who are also not in care coordination: 57%. This is an issue in all three of the BLP program Regions. In each of the areas, there is a substantial number of women whose births were paid for by Medicaid and who either never received prenatal care or received it very late in pregnancy… and who were *not* enrolled in care coordination: 482 (East), 551 (Triad), and 269 (Northeast). A disproportionate number of these Medicaid women who are slipping through the cracks are African American: 81% (East), 61% (Triad), and 71% (Northeast).

More surprisingly, there is a substantial group of women in the study target population who despite being in maternity care coordination are still late getting into PNC care (or not getting PNC at all). The majority is African American (91%), and represents a group for whom the system is not working adequately. It is not clear what factors are responsible. This is something that will be monitored over time, and hopefully will decrease with the additional services provided by the Healthy Start Baby Love Plus funding.

In all, the efforts of the BLP-Triad program have exceeded their objectives on some indicators, are still working toward goals on other process and programmatic indicators, and for outcome indicators such as prematurity, low birth weight, and infant death, it is still too early to assess program impact for the defined study population. The program has achieved excellent levels of outreach and referral of high-risk women into care and has established an active, visible, and popular Community Consortium that serves to maintain high visibility for issues related to healthy birth outcomes and a voice for local community leaders and agencies to be heard in the process. Community capacity, responsibility for, and ownership of infant mortality reduction efforts have demonstrably increased during the project period. BLP outreach and referrals have resulted in appropriate and valued service provision, based on feedback from consumers and local providers. Birth outcomes in the project area appear to be improving, however final impact cannot be determined until full data for program participants become available in mid - 2006.

Table 13

Baseline and Early Study Period Comparison of

Demographic, Risk Factor, Service Utilization, and Birth Outcome Data*
For African American Medicaid Births with and without Maternity Care Coordination (MCC)
NC Baby Love Files (merged birth, death, Medicaid, MCC data)

	Baseline: No. of Births: 3787 (20.0%)**		Early Study Period: No. of Births: 3861 (19.2%)**	
Demographics	MCC N=2825 (74.6%)	No MCC N=962 (25.4%)	MCC N=2884 (74.7%)	No MCC N=977 (25.3%)
Mean Age	22.5 years	24.8 years	22.7 years	24.7 years
Unmarried	87.3	75.1	88.1	74.5
< 18 years	5.4	5.4	12.3	4.5
Mean parity	2.0 births	2.4 births	2.0 births	2.4 births
Mean years educ	11.8 years	12.4 years	11.8 years	12.3 years
Hispanic	0.1	0.4	0.4	0.0
Risk Factors				
Smoked	16.4	20.1	17.1	21.0
Wt gain<15 lbs	12.8	10.6	12.4	13.9
Short interval (<23 months)	26.5	23.4	25.2	22.8
Prev infant death	3.5	2.5	3.4	2.6
Service Utilization				
Late or no PNC	4.2	9.9	3.6	7.6
Inadequate PNC	18.3	25.9	17.3	21.2
Mean # PNC vts	12.7 visits	11.6 visits	12.7 visits	11.9 visits
Birth Outcomes				
LBW	15.1	16.6	14.5	16.0
VLBW	4.1	4.6	3.4	4.4
Preterm (<37 wks)	15.9	17.5	13.5	17.4
#. of infant deaths	55 deaths (IMR: 19.5)	20 deaths (IMR: 20.8)	45 deaths (IMR: 15.6)	19 deaths (IMR: 19.4)

Numbers shown are percents unless otherwise indicated. **Data shown are for African American births paid for by Medicaid and represent 20.2% of the total 18, 743 births in 1996-97 and 19.2% of the 20.070 births in 1998-99.

Section IV. Recommendations Stemming from Evaluation

Final recommendations are somewhat premature as outcome data for the study time period are not yet available. Full reports comparing pre- and post-intervention data as well as results compared with control counties will be possible as soon as the outcome data are complete and made available. One major advantage of the NC program is the availability of a rich and extensive database that links vital records with Medicaid and health department data making possible a full analysis of program impact over time and compared with regions where no program existed. However, the drawback is that these data are part of the larger State reporting system, and as such are subject to the limitations imposed by staff shortages and the inevitable delays due to working with vital records. Final data for births to women included as participants from July 1999 through December 2004 will be complete in mid-2006. We continue to review program information and track trends in service delivery and outcomes for the study region, which are the results presented in and findings that are highlighted in this report. Any further extrapolation of the data or recommendations for policy or program changes would be unwarranted at this time.

The evaluation team has provided feedback to program managers regarding patterns of outreach and referral and use of facilitating services, where appropriate. These findings contributed to a number of decisions about the design and focus of program activities, most specifically a shift from a broad-based community approach to a more targeted, risk-based approach of case finding and referral for care. This new emphasis in program activities is reflected in the design of the current cycle of the Triad Baby Love Plus project where CHAs are working as part of the MCC clinic team rather than as part of the health education and outreach team in most health departments. Data clearly indicate that outreach activities should be focused to match the known risk groups, rather than the community at large. The following recommendations are suggested based on preliminary findings.

Program Recommendations: Throughout the course of implementing the TBLP program, several recommendations related to specific components of the program have been identified and discussed among the project management team with input from evaluation, as follows.

Consortium: The TBLP Consortium, over the course of the project period, evolved to become a large body of community members representing consumers, staff, and related health agencies. It was open to any and all who were interested in improving birth outcomes and getting the word out to the community about infant mortality issues. As such, the Consortium grew in size and has become somewhat cumbersome in that it is a large group with variable attendance. This has made decision-making and a task-oriented agenda more difficult. In order to maintain continuity and to assure effective representation across the key groups of stakeholders involved, it was recommended that a more effective approach would be to have an Executive Board with a smaller group that was more focused, and task oriented. This group would essentially serve as a "steering committee" for the larger Consortium and consist of representatives of key stakeholders from the community. The Consortium has undertaken the Executive Board approach with the current Healthy Start Initiative (2004 – 2009).

Case Management and Outreach: Data from the early period of the program indicate there have been a large number of outreach contacts by BLP program staff with community groups and individuals, but a very small referral rate into specific perinatal services. Therefore the recommendation has been to better target outreach to primary contacts who would benefit from direct and immediate services, and to refocus group activities to specific groups of high-risk women rather than general public awareness based activities such as health fairs and community events. The new data collection forms for this component reflect this recommended change.

Additionally, the program has planned a series of intensive and practical trainings for outreach workers on local data and risk factors most prevalent in the Triad program communities in order to (1) assure a clear and comprehensive understanding of the epidemiology of infant mortality; and (2) provide the tools to assure a broader and deeper understanding of these the risks such that the information is internalized by local staff. This is based on evaluation feedback that outreach workers and staff need to really believe and understand the data related to poor birth outcomes, and to be able to personalize the concern about short-term outcomes (mortality and prematurity) and longer-term consequences (disability, developmental delays, chronic illness) before they can convince others of their import, or before they can motivate at-risk individuals to take seriously the challenges and gravity of having a LBW, premature, or sickly child.

Interconceptional Case Management: Extended care coordination became effective in the program in 2002, with a screening tool to identify high-risk women having been developed and implemented. Although most every BLP participant was found to have received a screen, the data indicated that a notable number, who screened positive for risk factors, did not receive a referral for extended care coordination. Recommendations for more in-depth trainings on motivational techniques and strategies for engaging families in the interconceptional period were suggested. Additionally, evaluation findings suggest that cultural sensitivity trainings are not needed so much among "medical" staff in local clinics; rather it is among support staff such as receptionists, financial / business office personnel in selected sites where this is a problem for consumers. Additionally, feedback from both consumer surveys as well as listening sessions with staff indicated the need to refine enhanced case management services to enable staff to do a more effective job. One recommendation was to allow for longer-term programs that follow clients into the postpartum period and to limit these services to those at highest risk so that the caseload would be restricted to a reasonable size to enable effective service.

Policy Recommendations

Focused Prevention: There needs to be a policy shift in the efforts of the Consortium. The policy should redirect resources from a broad-based community-level approach that focuses primarily on the prenatal period to that of a case-by-case approach focusing on care and support during the interconceptional period. Broad-based, community-level outreach and awareness is good but not sufficient to realize an impact on the population of families at highest risk, and therefore unlikely to lead to reduction in basic indicators such as low birth weight and prematurity. Data show that the best predictors of these risks are previous history of poor outcomes, and that they are more likely to occur among African-American families living in specific low-income neighborhoods. The focus of current BLP activities concentrates on family care coordination after the 60-day MCC close-out for those families not already enrolled in CSC and who have clear risk factors. Intensive, individualized services by a LCSW over 24 months

that identify and support needs across key domains of a woman's life is the model that is evolving in the new cycle of NC Healthy Start programs and that which is currently being tracked for success. This model will have only limited success however, unless staffing and management provide the program with the necessary resources and support. It will take time to shift emphasis among outreach workers from the community, public awareness approach to a more targeted case management approach where staff see themselves as part of a case management team, rather than as health education agents, working in parallel rather than in tandem with the local MCC/FCC teams.

Interagency / Program Coordination: The Triad Baby Love Plus program operates in two of North Carolina's urban counties that each have numerous health and social services resources and very well developed public health programs and well established and private sector medical and social service institutions. Despite these resources, the Triad is notorious for its poor standing regarding infant mortality and long history of poor birth outcomes. The State's Healthy Start Program in the Triad continues to struggle with the issues of local politics, turfism, and existing partnerships and local coalitions that hinder progress towards common goals. One recommendation that is already being addressed is more explicit partnership between the Healthy Start program and local groups such as Infant Mortality Coalitions, sharing strategic planning and scheduling regular communications. Additionally, working through local churches and the local business communities that serve targeted neighborhoods is likely to move the program more effectively into concrete and effective partnerships. The community grants program of *BLP* is another strategy that underwrites this effort, and should be continued.

Local Ownership: The development of the Regional Consortium (and LHSAP), along with the implementation of the Healthy Start Institutes, and the Family Leadership Development Retreats are very prominent dimensions of the TBLP that demonstrate local ownership. All of these venues have provided an arena for program and community participants to learn about and voice their concerns and ideas regarding perinatal health service needs for the region. They also have been "schools of learning" for the development of advocacy skills. Lastly, these events have provided opportunities for program and community participants to exercise leadership in the identification and distribution of programmatic/fiscal resources. The preceding examples of local ownership support the capacity building and sustainability effort of the overall NC Baby Love Plus program in the Triad region. Specifically, the decision-making efforts of the Regional Consortium to expand the perinatal health resources of the region through the development of new partnerships, warrants continued fiscal and technical support by TBLP staff. Future plans are in place to assist BLP Consortia in program regions to consider incorporating as 501(c)(3) entities, thus enabling them to receive and dispense funds independently. This decision is ultimately in the hands of local community leadership and will be determined by the Regional Consortium Board key partners.

Section VI. Reports/Publications/Products/Data Collection Tools/Study Instruments

A number of items have been produced as part of the NC Baby Love Plus Program. To date, the majority of items relate to data collection, community surveys, and presentations or preliminary summaries of findings. While we await final outcome data, we have prepared a number of interim reports and made presentations to local groups, Consortia, and staff. We include these

items as Attachments and have organized them as follows. (Note some, as indicated are not included as attachment due to length limitations, but are available upon request)

Data Collection Forms

1. Monthly Contact and Referral Logs
2. Maternity Care Coordination Postpartum Screening Form
3. Family Care Coordinator (FCC) Intake Form
4. FCC Month-at-a-Glance Log
5. FCC Family Tracking Log
6. Regional Consortium Manager's Report Form
7. Training Assessment Form
8. Administrative Index

Survey Instruments and Questionnaires
1. Consumer Survey Instrument
2. Consortium Survey Instrument
3. Provider/Partner Survey Instrument
4. BLP Consumer Satisfaction Questionnaire

Slide Shows / Presentations / Reports
1. Local Health System Action Plan Update
2. Local Health System Action Plan Background Summary Report
3. Trimesterly BLP Team Meeting Program Reviews (sample from July 2004)
4. Evaluating and Monitoring Community Partnerships, Building Bridges Conference
5. Overview of NC Baby Love Plus Program Intervention Models, and Evaluation Plans
6. Description of NC Healthy Start Models, Populations Assessed, Data Sources, and Program Objectives
7. An Overview of BLP Baseline Data
8. Selected Literature Review Summary for LHSAP Workgroup
9. Perinatal Period of Risk Analysis and Slide Presentation

Training Materials (available upon request)
1. Consumer Survey Overview
2. MCH Data to Action Workshops
3. Interviewer Training Manual for BLP Consumer Surveys
4. Evaluation Overview for BLP Staff

Section VI. Publications

The evaluation team has produced a number of reports and data summaries. The most extensive of these was the *Background Summary* compiled as part of the LHSAP. This report analyzes Regional trends in infant mortality over two decades, compares rates of infant mortality, low birth weight, and prematurity for the Triad to the State for the priority population being served. Additionally, the report summarizes the results of a series of listening sessions that were conducted with outreach workers, case managers, and clinical specialists from both counties in

the project area and their recommendations regarding perinatal health services in the Triad. A summary of recently published key literature related to infant mortality and associated risk factors was provided to the Consortium Workgroup as well as reports on STDs and reproductive tract infections, a report on fatherhood initiatives, and a report on socioeconomic trends for the Triad region that may impact family well-being. These items are all included in the Attachment for further details. A standard report is produced for management team meetings held three times over the past year. These program and administrative data have been provided to the evaluation team as scheduled (quarterly, semi-annually, and annually depending on the program area) and were presented February, June, and October to Baby Love Plus staff. A copy of the reports provided and data summarized is included in the Attachment. Most program data were collected on summary sheets by BLP staff or regional managers and then provided to the evaluation team via email. Results of computer runs using vital record files were provided by the State to the Sheps Center as they became available and were requested for analysis. Frequencies and selected bi-variate summary data were included in program reports, as required. Specific analyses and detailed descriptions of how evaluation data were used over the past year is as follows, according to each data source (See Data Flow Chart in Attachment). More detailed information about the periodicity, field logistics, and specific use of each type of data is included in the *Data Forms and Procedures* document included in the Attachment.

The local evaluation of the Baby Love Plus program assesses each of the three program components, Case Management, Outreach, and Education and Training — as well as the Regional Consortium, with the primary focus being reduction of minority infant mortality and morbidity and improved perinatal health for those women most at-risk. Additionally, as mentioned above, the evaluation is actively involved in the Regional Consortium's efforts to implement the Local Health System Action Plan, by providing technical assistance and data as needed. Finally, the evaluation team has assisted with required reporting protocols and other Healthy Start information activities, and worked closely with the management team in producing needed information for the continuation application.

Dissemination Plans/Utilization of Results

The BLP-Triad staff along with the evaluation partners plan a series of releases as dissemination strategies for the findings of the BLP Program in the Triad region. In keeping with the participatory approach that has been the foundation of the overall program, the findings will be shared with the Regional Consortium and its appropriate sub-committees. Based on their feedback, strategies for dissemination will be incorporated into the annual Action Plans and activated throughout the project year. Products will be designed using appropriate reading levels and information styles. It is anticipated that we will hold a series of briefings for the Speaker's Bureau personnel, and have several Executive Summary pieces developed that can be distributed to interested public health leaders in the community. Local staff in collaborating agencies will be called upon to help interpret findings, and once completed, the results will be disseminated through these partners as well. We plan to develop fact sheets for selected topics related to key risk factors for the local target communities. These will be four pages (maximum) with general information about the risk factor and specific data and outcomes for each local community, based on data from the Baby Love files and primary data collected through BLP field staff. The fact sheets will be provided to BLP outreach workers in addition to local liaisons and Consortium leaders. Finally, results will be prepared and submitted for presentation at the

regional and national levels at APHA and AMCHP and CDC's MCH meetings. The data for these results will not be available until 2006. However should important findings on process indicators become apparent in the meantime, we will prepare summaries for presentation before then. We also plan to collaborate with researchers at the NC State Center for Health Statistics who had conducted original evaluations of the NC Baby Love program in 1992, and conduct an update of this evaluation using BLP project data. These results will be submitted for dissemination through the State's *Health Findings Briefs*, a series of monographs that are produced periodically and sent to health practitioners, public health leaders, and researchers throughout the State.

VII. Fetal and Infant Mortality Review (FIMR)

Triad NC Baby Love Plus funds were not utilized for FIMR. FIMR is being developed utilizing MCHB Title V funding.

VIII. Products

The following curriculums or training materials were developed using Healthy Start 2001 – 2004 grant funding.

- *Elements of the Past – Implications for the Future.* Cultural Diversity Training Curriculum (Attachment M)
- *The Ministry of Health Initiative; A Spiritually-based, Holistic Approach to Health and Wellness.* Pastors and Lay Congregants Guides (Attachments N and O)
- *Counseling Women Who Smoke Guide* (Attachment P)
- *Healthy Mother Healthy Baby* brochure for first time expectant parents (Attachment Q)

Healthy Start funds were also used to produce the Annual Healthy Start Training Institute (2001 – 2004). Samples of the conference brochure are included in Attachment R.

IX. Project Data

All required project data has been previously submitted under separate cover.