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I. OVERVIEW OF RACIAL & ETHNIC DISPARITY FOCUSED ON BY PROJECT

The focus of the Indianapolis Healthy Start (IHS) project was to address the factors that directly contributed to infant mortality in Marion County, Indiana.

The target population included women at risk by demographic factors, medical conditions preceding and arising during pregnancy, behavioral and environmental exposures and newly evolving concepts of risk. Specifically targeted racial and ethnic groups included African American, Hispanic, and Appalachian women and families who experienced high rates of poor birth outcomes.

Large racial disparities exist in infant mortality in all perinatal health measures. The Black infant mortality rate in 1999 was 2.7 times higher than the White rate, and the Hispanic rate was 2 times higher than the white rate. Additionally, health disparities persisted in all measurements of perinatal health status. Black women and their families fared worse in all perinatal health status measurements than White women and their families, except for smoking during pregnancy. The data highlighting the prevalence of the problem of infant mortality in Marion County was well documented in the initial needs assessment.

**Births**
- There were 13,618 live births-about 37 births per day (1996-1998 average). Of these births 63.3% were White, 26.5% were Black, 3.6% were Hispanic, and 5% were other.

**Infant Mortality**
- Indiana ranked 38th in the United States for infant mortality in 1997 (Kids Count 2000).
- 130 babies died each year in Marion County. (1996-1998 average)
- Large racial disparities existed in our infant mortality. The overall infant mortality was 9.5 (15.6 Black and 7.5 White) (1996-1998 average).
- Fifty-nine percent (59%) of all infant deaths were due to three leading causes: 1) Prematurity, 2) Birth Defects, and 3) Infections. (1996-1998 average)

**Teen Births**
- Teen birth rates have decreased from 53.9 in 1996 to 45.7 in 1999.
- Black teens had a disproportionate share of teen births. The African American community represented 21.3% of the total population, but 44.9% of all teen births were born to Black teenagers.

**Low Birth Weight**
- Most babies who died were born too early and too soon.
- Among all infants, 9% were born low birth weight (<2,500 grams or 5.5 lbs.) and 1.7% were very low birth weight (<1,500 grams or 3.3 lbs.). However, while low birth weight accounted for 9% of births, it accounted for 77% of neonatal deaths and 33% of postnatal deaths (FIMR 1997).
- A significant health disparity existed as Black women were twice as likely to have a low birth weight baby than White women. (1996-1998 average)
**Trimester of Prenatal Care**
- 75.8% of babies were born to mothers whose prenatal care began during the first trimester of pregnancy.
- The key barriers to mothers receiving first trimester care were: difficulty in getting an appointment, not being able to afford it or not recognizing the symptoms of pregnancy.
- A health disparity existed among Black women (63%) who were less likely to enter care in the first trimester than their White counterpart (80%).

**Adequacy of Care**
- Seventy-three percent (73%) of mothers received adequate or adequate plus care. (1997 FIMR).
- A racial disparity existed as Black mothers (26%) were more commonly classified in the inadequate care category than White women (11%). (1997 FIMR)

**Smoking During Pregnancy**
- Extensive research demonstrated that smoking was a major contributing factor to babies being born low birth weight and premature.
- More White women smoked during pregnancy (23.4%) than Black women (15.2%) (FIMR 1997).
- It was noted that 79.1% of women abstain from smoking, while the national 2010 target is 98%.

**Domestic Violence**
- Violence during pregnancy directly impacted the mental and physical health of pregnancy women.
- The Indianapolis Police Department reported a total of 8,202 domestic violence crimes in 1998. The Marion County Sheriff’s Department reported a total of 4,053 victim assistance cases of domestic violence in 1998.
- Accidents, adverse effects and homicides accounted for 5% of all infant deaths.
- A total of 5,623 cases of child abuse or neglect were reported in 1999 in Marion County (FSSA FY 1999)
- Disparities existed in domestic violence of adults served in emergency shelter for domestic violence approximately 37% were African-American where as African-Americans represented only 21.3% of the population.

Various types of social and economic problems that affected the Marion County community were also associated with adverse birth outcomes including alcohol and drug use, which is under reported in vital statistics, the primary source for substance abuse data in the community.

The mappings of infant mortality occurrences in 1996-1998 showed that infant deaths were equally distributed across Marion County. Therefore, the targeted population was not defined by geography, but rather by maternal risk factors.
II. PROJECT IMPLEMENTATION

IHS core services were designed to address the prevention of the leading causes for infant deaths in Marion County at the program level as well as impact disparate populations identified in Section I of this report. The Core Systems Efforts were implemented to address these causes and populations on a community-wide level. Overall, project interventions were designed to enable providers and clients to improve their role of nurturing healthy babies.

A. Core Services

1. Outreach and Client Recruitment

IHS outreach services provided health education to community participants, promoted name recognition in the community, recruited participants for Consumer Connection/Healthy Babies Consortium activities, and recruited program participants for core services, including case management, interconceptional care, depression screening, and health education. The community outreach program was provided to community participants through community canvassing, event participation, and health education presentation activities. The target population was underserved and disadvantaged pregnant women in Marion County (including minorities), those at risk by demographic factors (e.g., teenagers), or those at the highest risk of poor birth outcomes. Outreach services were provided to pregnant and interconceptional women and their partners (defined as fathers, male or same sex partners) at risk for poor perinatal outcomes, African American men and women over 12 years of age, and victims of domestic abuse. Specifically, IHS provided outreach services to the African American community, where infant mortality disparity was greatest. The ISH Outreach Workers focused on eliminating disparities in the African American community by reaching pregnant, preconceptional, and interconceptional women, and anyone else who could give encouragement and support to pregnant women. The outreach team consisted of a lead Outreach Worker (also a health educator) subcontracted through the Minority Health Coalition of Marion County, two lay Community Outreach Workers, and a Community Health Worker. The MHCMC Outreach Worker was the only outreach staff for the first two years of the project. By the third year of the program, two part-time lay Community Outreach Worker positions were added as it became apparent that grassroots outreach was essential for recruiting high-risk clients into care, and that using indigenous Community Outreach Workers was most effective in gaining the trust of those living in the high risk areas. In the fourth year of the project a full-time Community Health Worker position was added to increase home visitation and to help increase retention of clients in the interconceptional phase of the program. In Indiana, Community Outreach Workers are not certified, and therefore, cannot make home visits.

Typical outreach duties included: conducting educational presentations and workshops, referring clients to clinical and social services, distributing educational materials, coordinating community events, media outreach, and conducting grassroots campaigns at apartment complexes, laundromats, churches, strip malls, hair salons, and community centers. Name recognition activities included television and radio programs/ads, articles in newsletters and newspapers, flyers and displays posted in the community, and health fairs. IHS staff distributed a bilingual 18-month Indianapolis Healthy Start calendar that
highlighted pictures of IHS clients and health education messages. Also distributed was the *Communicator*, an educational community newsletter that was developed with the help of lay community members and that includes key health education messages. Incentives such as nylon bags, scratch pads, water bottles, pens, and magnets were also distributed to enhance IHS name recognition. IHS staff met regularly with Healthy Families, WIC, Care Coordination, and Sister Friends to coordinate services and reduce duplication of services. Program collaboration demonstrated the necessity of reciprocal referrals by all programs. IHS also referred clients to First Steps, which served Children with Special Health Care Needs (CSHCN). The MHCMC Outreach Worker collaborated with the ISDH Office of Minority Health to coordinate the annual “Shower Your Baby with Love Baby Shower” and “Grandmother’s Tea”. The Outreach Worker coordinated with Community Centers of Indianapolis to provide educational outreach programs to senior citizens and teen youth groups at community centers in the target high-risk areas. The Outreach Worker partnered with the Washington Park Community Center, located in the heart of one of the highest risk neighborhoods, to hold monthly Baby First Advocates meetings. The Outreach Worker also worked with school health and alternative adult educational programs to offer additional outreach and educational services. Faith-based organizations, such as the Parish Nurse’s Association, the Ministers Alliance, and the Community Resurrection Partnership, were identified to aid in reaching out to church congregations to offer programs such as “SIDS Sundays”. The Outreach Worker also collaborated with neighborhood associations in high-risk communities to further implement outreach services within those communities. In addition to outreach to targeted neighborhoods, the Outreach Worker coordinated activities of the Baby First Advocates project, which enlisted the help of community volunteers to reach out to women in need of services. The Outreach Worker and Baby First Advocates devised a system of getting pregnant women into IHS case management services. When an Advocate identified a woman not yet receiving care, a referral was made to the outreach worker at MHCMC. The Outreach Worker assessed the client’s needs and referred her to the IHS site that would best address those needs for enrollment in the program. The Outreach Worker and Community Health Worker were always looking for women who would benefit from the IHS program, and made a referral for services at any time. In addition, all IHS staff referred clients to Healthy Start core services when an individual with needs was identified.

The MHCMC Outreach Worker coordinated activities of the Baby First Advocates project. The project was established to increase awareness of infant mortality and disparities in the African American community, the group experiencing the biggest health disparities in Marion County. This innovative project proved to be effective in promoting name recognition and increasing the number of clients reached, while giving community members a vested interest in the success of IHS. The Baby First Advocates project, initiated in the third quarter of 2003 was a collaborative effort of IHS, Minority Health Coalition of Marion County (MHCMC), and the Indiana Perinatal Network. It was a grassroots outreach program that recruited community volunteers who were willing to help educate others on maternal and infant health issues. Anyone who was interested in lowering infant mortality and eliminating perinatal disparities could become an Advocate. Baby First Advocates were mothers, fathers, grandparents, aunts, uncles,
daughters, and sons. Baby First Advocates met once a month to come up with ways to educate others in their community about maternal and infant health and disparities in perinatal health. Advocates worked with churches, community organizations, beauty salons, and other local businesses to further develop ways to educate the community, advocate for change, and help recruit pregnant women into IHS. The IHS outreach worker at MHCHC coordinated the activities of the Baby First Advocates Project, but the Advocates were encouraged to develop their own ideas and strategies to create change within their communities. Advocates also served as community gatekeepers. They enabled the outreach worker to develop relationships with new community agencies so that more people were reached. Baby First Advocates took educational information to their churches and helped the Outreach Worker implement educational programs and activities (such as “SIDS Sunday”) in the churches. Advocates helped coordinate community events, like the Washington Park Community Block Party, participated in health fairs or other community events, distributed educational information, and identified pregnant women in need of further services. They also helped develop culturally sensitive educational materials, such as the community newsletter, The Communicator, which was distributed within high-risk communities to heighten awareness of infant mortality. Finally, Advocates served as community representatives who provided the invaluable insight necessary in developing effective programs to impact the target communities. The Baby First Advocates project also worked closely with the Indianapolis Healthy Babies Consortium’s Consumer Connections. Participants of the Consumer Connection (including clients receiving Healthy Start services) were encouraged to attend Baby First Advocate meetings. The two groups attended each other’s meetings and provided program updates so that members of each group were aware of what the other group was doing. They coordinated their activities accordingly. In the first six months of the Baby First Advocates project, 10 advocates were recruited and trained. Half of the advocates were men. The project has energized the outreach staff as the community has enthusiastically taken action to reduce disparities.

The Wishard Health Services Case Manager conducted outreach activities targeting victims of domestic abuse. The Case Manager, a trained counselor, provided domestic abuse outreach to the community and recruited women into IHS case management services. Most of the recruitment was one-on-one, but the Case Manager also provided outreach to people through poster display/distribution in the waiting room, and through collaboration with community organizations for referrals. IHS case managers at subcontractor organizations, including Wishard Health Services and HealthNet, Inc., were responsible for working with the outreach staff at their host organization (not funded by Healthy Start) to ensure that Healthy Start services were promoted in the organization’s outreach activities. These non-Healthy Start-funded Outreach Workers conducted outreach activities in their catchment areas to recruit women into care, promoted Healthy Start, and increased community awareness of women’s perinatal health issues. Women who were eligible for Healthy Start services were referred to contracted staff for recruitment and enrollment into Healthy Start. Data from the non-Healthy Start-funded outreach activities was not collected or reported. The subcontracting agency was responsible for the training and supervision of their own
outreach workers. IHS case managers monitored the success rate of attempts to recruit clients into the program.

Upon receiving a referral, IHS case managers conducted intake and enrollment of program participants. Case managers verified eligibility for enrollment, explained Healthy Start program benefits, and asked clients if they wished to enroll. After answering any questions about the program, case managers asked clients to complete an enrollment form. Basic demographic, contact, pregnancy, sibling, and consent information was collected. In 2003, the enrollment form was revised to also include personal safety information. This process ensured that all clients were screened and referred to any needed domestic abuse services from the beginning of their involvement in Healthy Start.

Annual program participant capacity was 250 women and 190 children. Case managers maintained a minimum of 50 active clients. Program enrollment was an ongoing activity as vacancies occurred as program participants left the program through termination or graduation. Capacity to enroll was monitored through the database so that eligible clients could be assigned to case managers as vacancies become available. In an effort to monitor program capacity, IHS implemented a leveling protocol to determine the level of service clients needed and identification of staff caseload. This provided a tool for determining client priority and reallocation of case management resources should IHS reach capacity with program participants. IHS staff also worked very closely with other maternal and child health programs in the county, and made referrals to ensure that clients’ needs were met in the event that IHS could not provide services directly. In 2004, 73% of Healthy Start clients enrolled during the first trimester. While outreach workers tried to recruit clients in the first trimester, they often located those in the second or third trimester not accessing care. Those not accessing care typically had substance abuse problems. Since these were often those at the highest risk for poor birth outcomes, IHS provided services to those clients with the goal of reducing any barriers to care for future pregnancies.

Retaining clients was a function of subcontractors and IHS administrative staff. As first line staff, subcontractors had the responsibility of monitoring client participation in Healthy Start. If clients missed an appointment, staff followed up by way of phone calls, by contacting alternate contacts to find out where the client was, by mailing postcards, and by home visitation. Appointments were then rescheduled. Staff attempted to contact the client three times prior to termination. Case managers also enlisted the help of community health workers to outreach to clients lost to follow-up. The data manager provided monthly reports to the subcontractors to help monitor client activity. To aid retention, efforts were made to ensure that clients found services beneficial. Protocol required participants of all outreach and health education classes, and all case management clients, to receive a confidential client satisfaction survey. Case management clients had at least three opportunities to complete the survey: during prenatal care, during interconceptional care, and at termination of services.
IHS administrative staff continued to monitor reasons for termination and time of termination, and made adjustments accordingly. Administrative staff also supported retention efforts by providing the educational opportunities and materials subcontractors needed to do their jobs well. Providing quality services that clients wanted and needed enhanced retention. Technical assistance opportunities were pursued to ensure that best practice guidelines were followed for services provided to clients. Staff were expected to provide culturally sensitive services to all clients, and cultural competency training was provided annually. Consumers were also given an avenue for input into needed services through the Consumer Connection/Healthy Babies Consortium meetings. Finally, IHS administration modified the program as needed, based on input from consumers and staff.

The retention barriers for pregnant clients vs. interconceptional clients tended to differ. The biggest barrier for prenatal clients was long waits for appointments with providers. Although most clinics had been monitoring access for patients seeking prenatal care, it was reported that the wait for first appointments was four or more weeks depending on the clinic. IHS enrolled clients, intervened on their behalf to get an earlier appointment at the clinic, and began health education prior to the first appointment. IHS also worked with community partners and the consortium to address access to care issues in the clinics. The majority of clients welcomed IHS perinatal care services. IHS retention challenges tended to occur during interconceptional care and with victims of domestic abuse. The biggest challenge to enrolling clients in interconceptional care was that most clients did not have insurance that paid for preventive healthcare. Even with encouragement, clients were reluctant to pay out of pocket for preventive services. During interconceptional care, clients occasionally cited transportation problems or lack of childcare as reasons for dropping out of Healthy Start services. However, many expressed not having enough time for the program, or felt that the services offered were not needed. To address barriers to interconceptional care, IHS provided referrals to transportation and childcare services, home visitation, and enhanced curriculum to retain clients. IHS also set an objective to increase the length of time clients were retained in interconceptional care services, so retention was closely monitored. Domestic abuse client participation tended to follow patterns of crisis. If a client was not ready to leave a violent relationship, she would not want contact with the case manager until another crisis occurred. Also, it was often unsafe for the case manager to make home visits to victims of domestic abuse; visits with clients were often held in public places. Phone calls to the home were not possible if the client’s abusive partner was around. Therefore, the domestic abuse case manager worked very hard to maintain consistent contact with clients. Many of these clients came back to IHS at a later date.

The MHCMC Outreach Worker, and the IHS Program Manager monitored training to ensure the fulfillment of the IHS outreach requirements. Training for the Outreach Workers, Community Health Worker, and the Baby First Advocates focused on the following activities: 1) how to identify a neighborhood area and its neighborhood leaders; 2) how to contact neighborhood leaders; 3) how to start a conversation with a pregnant woman; 4) having active listening skills; 5) using language to engage pregnant women in prenatal care; and 6) delivering important health education messages. Safety training for outreach staff was held in conjunction with the MCHD Housing Department. Training
for all outreach staff followed the MCHD care coordination outreach worker curriculum that has been reviewed and promoted by the Indiana State Department of Health (ISDH) Maternal and Child Health Service. In Indiana, Community Health Workers have to complete and pass an exam to become certified before home visits can be made. The training guide consisted of 12 units covering a wide range of maternal and child health and home visitation topics. Observation and practical assessments were also required for certification.

The MHCMC Outreach Worker was supervised on a daily basis by the MHCMC Program Manager. All staff engaged in outreach met regularly with members of the IHS administrative team to discuss activities and progress. The IHS Quality Assurance Coordinator also met monthly with staff to ensure that target groups were being reached and health education content was accurate. On a monthly basis, the IHS Data Manager reviewed the outreach program data to ensure that the enrollment and data reporting goals were being met. Outreach activities conducted by the domestic abuse Case Manager were supervised by the IHS Program Manager in conjunction with the Site Supervisor. The IHS Program Manager was ultimately responsible for ensuring that all subcontracted and administrative staff met the scopes of work. While outreach staff had support from immediate supervisors at their site, the Program Director and Manager maintained an open door policy for all staff.

2. Case Management

IHS case management provided risk assessment, coordination services, home visitation, health education, and counseling and guidance. The case management team structure included six case managers and a community health worker (CHW). Case managers were subcontracted staff. The role of Case Managers was to conduct risk assessments, work with clients to develop a care plan, supervise the care provided to clients, and ensure appropriate contact with clients throughout the program. Case Managers enlisted the help of a CHW to make sure all needed services were provided. To meet the array of client needs, Case Managers hired were social workers and nurses that came to the program with diverse backgrounds and professional experiences. Case management staff included 1 FTE nurse practitioner, 1 FTE nurse, and 4 FTE social workers. One of the social workers specialized in case-managing victims of domestic abuse, and another was bilingual (Spanish/English). Case Managers retained a minimum caseload of 50 active clients. Working under the supervision of the Case Manager, the CHW’ primary role was to make home visits to Level 3 (highest risk) clients and to follow up with clients who appeared overdue for a visit. The CHW was indigenous to the community and received specialized training to provide clients with home visitation services and to conduct outreach activities. The CHW retained a minimum caseload of 30 clients. To ensure communication, quality assurance, and continuity of care, the Case Managers and the CHW met weekly to coordinate services provided to clients.

Case Management services were delivered in various ways to ensure that they were in a format and location that maximized client use. IHS Case Managers found it beneficial to schedule appointments with their clients at clinic visits to increase compliance with keeping those appointments. They could also see a larger volume of clients if they
scheduled visits in conjunction with clinic visits. However, home visits, phone consultation, and meetings in the community were also methods used to deliver services. At each home visitation, the Case Manager or CHW determined the needed services, made referrals, and provided health education, counseling, and guidance. While home visitations occurred throughout a client’s enrollment in the program, the CHW focused on clients in their interconceptional phase to improve retention.

IHS required that initial risk assessment be conducted at the first perinatal visit and at the first interconceptional visit, where assessment of both mother and infant was conducted. However, Case Managers conducted as many assessments as they deemed necessary based on changes in the client’s situation. Based on the risk assessment, a client was assigned a care level, 1-3, where 1 was lowest risk and 3 was highest risk. Additional risks could increase a client’s level and therefore change the minimum contact required. Case Managers were ultimately responsible for ensuring that each of their clients received all of the health education, counseling, and wrap-around services they needed based on risk assessment. Level 3 clients received additional support from the CHW. Table 1 shows the perinatal risk assessment criteria.

<table>
<thead>
<tr>
<th>AT RISK FOR PRETERM BIRTH (Level P3)</th>
<th>AT RISK FOR POOR PREGNANCY OUTCOME (Level P2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Pre-term delivery</td>
<td>History of infant death</td>
</tr>
<tr>
<td>Drug Use Occasional Daily</td>
<td>SIDS Non SIDS</td>
</tr>
<tr>
<td>Alcohol Use Occasional Daily</td>
<td>Previous low birth weight infant</td>
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<tr>
<td>Smoking Occasional Daily</td>
<td>&lt;1,500 grams 1,500-2,500 grams</td>
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<td>Multiple gestation</td>
<td>Short inter-pregnancy period (&lt;12 months)</td>
</tr>
<tr>
<td>Cervix dilated, &gt;1.5 cm before 29 weeks</td>
<td></td>
</tr>
<tr>
<td>Cervix effaced, &gt;1 cm before 29 weeks</td>
<td></td>
</tr>
<tr>
<td>IRRITABLE UTERUS, &gt;6 contractions per hour</td>
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<td>Bleeding after 12 weeks</td>
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<tr>
<td>Preterm Labor</td>
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<td>Current pregnancy Previous pregnancy</td>
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<tr>
<td>History of Spontaneous Abortions</td>
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<tr>
<td>Other Medical Specify</td>
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<td>AT RISK FOR POOR PREGNANCY OUTCOME (Level P1)</td>
<td>AT RISK FOR POOR PREGNANCY OUTCOME (Level P2)</td>
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<tr>
<td>History of infant death</td>
<td>History of infant death</td>
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<tr>
<td>SIDS</td>
<td>SIDS</td>
</tr>
<tr>
<td>Non SIDS</td>
<td>Non SIDS</td>
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<tr>
<td>Previous low birth weight infant</td>
<td>Previous low birth weight infant</td>
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<td>&lt;1,500 grams 1,500-2,500 grams</td>
<td>&lt;1,500 grams 1,500-2,500 grams</td>
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<td>Short inter-pregnancy period (&lt;12 months)</td>
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<td>History of cone biopsy</td>
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<td>History of genetic disorder</td>
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<td>Specify</td>
<td>Specify</td>
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<tr>
<td>Previous infant with fetal anomaly or birth defect</td>
<td>Previous infant with fetal anomaly or birth defect</td>
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<td>History of eclampsia</td>
<td>History of eclampsia</td>
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<tr>
<td>History of incomplete cervix</td>
<td>History of incomplete cervix</td>
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<tr>
<td>Diabetes</td>
<td>Diabetes</td>
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<tr>
<td>Sickle cell anemia or Hemoglobinopathy</td>
<td>Sickle cell anemia or Hemoglobinopathy</td>
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<td>Asthma</td>
<td>Asthma</td>
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<tr>
<td>Primigravida, &lt;17 years or &gt;35 years old</td>
<td>Primigravida, &lt;17 years or &gt;35 years old</td>
</tr>
<tr>
<td>Hypertension</td>
<td>Hypertension</td>
</tr>
<tr>
<td>Missed (2) consecutive prenatal appts.</td>
<td>Missed (2) consecutive prenatal appts.</td>
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<tr>
<td>Prenatal care noncompliance</td>
<td>Prenatal care noncompliance</td>
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<tr>
<td>2nd hand smoke Occasional Daily</td>
<td>2nd hand smoke Occasional Daily</td>
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<tr>
<td>B Strep Infection</td>
<td>B Strep Infection</td>
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<tr>
<td>Periodontal Infection</td>
<td>Periodontal Infection</td>
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<tr>
<td>Other: Specify</td>
<td>Other: Specify</td>
</tr>
<tr>
<td>Low literacy/language barrier</td>
<td>Lack of transportation</td>
</tr>
<tr>
<td>Partner history of STI</td>
<td>Lead exposure</td>
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<tr>
<td>Lack of family/partner/social support</td>
<td>Lack of family/partner/social support</td>
</tr>
<tr>
<td>Lack/inadequate health insurance</td>
<td>Lack/inadequate health insurance</td>
</tr>
</tbody>
</table>
All case-managed perinatal clients received the same core services identified by first, second, or third trimester encounters. However, the intensity of health education and number of times a topic or need was addressed was tailored to the client. Each trimester encounter had a required set of needs to be assessed, and a list of additional needs to be assessed based on the client’s situation. There was also a required core of health education and counseling topics to be accomplished during the trimester. A database report was available for case managers to ascertain health education topics that had not been discussed with the client. This allowed staff to make sure all clients received core health education information as part of their IHS service, and allowed the Case Managers to work with a client at the level of intervention required. The same system was in place for interconceptional care of mother and infant.

In addition to providing health education and counseling, Case Managers and the CHW made referrals to all needed services, and documented in the database all referrals made for other services at each encounter. This included any referrals made over the phone. The Case Manager was expected to follow up with the client in a timely manner to determine if the referral was completed. The date of follow up with a client on a referral was documented in the database along with the outcome of the referral. The outcome was documented as “received” (or in the process of receiving service), or “not received”. If the service had not been received, the case manager documented the reason why it was not received. A report was run monthly for each Case Manager to identify any client receiving a referral that was not received followed up. Documentation of the reasons why clients did not complete referrals was examined, and necessary intervention was made as needed.

To ensure staff were able to implement quality case management services, IHS held extensive orientation training with all new staff that included an assessment of their continuing education needs. Administrators helped staff meet their identified continuing education needs by providing in-house training, identifying existing training resources, or contracting with content experts to provide training. IHS held quarterly staff meetings that always included an educational component that was typically requested by staff. Other programs were highlighted frequently at these meetings so that Case Managers could find out about resources to better meet clients’ needs. All Case Managers were required to participate in annual cultural competency training. Other core trainings were offered annually through the Marion County Health Department--or in collaboration with other organizations--for leading causes of infant mortality in the community, depression/mental health, breast-feeding, STD prevention, substance abuse, SIDS, folic acid/nutrition, signs of pre-term labor, immunizations, domestic abuse, and smoking cessation. IHS also participated in numerous technical training opportunities provided through HRSA/MCHB. In addition, Case Managers were frequently invited to attend local conferences that provided specialty training in domestic abuse, issues related to pre-maturity, and fetal alcohol syndrome. At the quarterly Healthy Babies Consortium meetings, staff received training that addressed topics that impacted local infant mortality rates. Finally, Case Managers were encouraged to self-assess their educational needs and were asked to identify and attend annual trainings to meet those needs. Funding for this purpose was provided for all IHS staff, whether they were subcontractors or in-house.
Case Managers assessed clients’ needs for a medical home, and facilitated establishing one if necessary. Case Managers or the CHW also coordinated any needed enabling services, such as transportation, childcare arrangements, and translation services. Another successful technique Case Managers employed to encourage attendance at clinic visits was to meet the client at the clinic either immediately before or after the medical appointment. This gave the Case Manager an opportunity to interact with the medical provider, and to reinforce the benefit of those visits with clients. Clients prefer this efficient use of their time as well. The biggest barrier to obtaining a medical home for clients is that they were often assigned a provider through the Medicaid managed care system that they either have difficulty accessing or did not particularly care to see. IHS staff helped clients access a provider that met their needs, so that they were more likely to receive appropriate medical care. Many non-citizen Spanish-speaking clients experienced problems gaining access to services in the geographic area in which they lived. It was reported that some area hospitals refused service and instead referred them to Wishard Health Services for care. The IHS bilingual Case Manager was instrumental in helping clients’ access services in close proximity to their homes. This Case Manager had also opened dialogue with administrators and service providers to bring clients’ access-to-care issues to their attention and find solutions to the identified problems.

To further promote access to care, Case Managers focused on three additional barriers: inadequate access to timely medical appointments, lack of quality mental health resources for clients, and lack of transportation and/or childcare. Getting a timely medical appointment was the main barrier for Spanish-speaking clients. The two clinics primarily serving Spanish-speaking clients were overwhelmed with the increase in clients needing bilingual staff to provide services. An IHS bilingual Case Manager was hired to work with clinic staff to facilitate clients’ entry into services. In some instances, case management services and health education for Spanish-speaking participants began prior to a client’s first appointment with a medical provider, to ensure that the client had an opportunity to engage in healthy behaviors early in the pregnancy.

The second barrier identified by Case Managers was a lack of quality mental health resources for clients. While all of the Case Managers had mental health services identified for client referral, the outcome of the referral varied greatly. In some instances the referral source did not follow up with the client in a manner that was satisfactory to the Case Manager. In some cases, the referral source was a social worker with limited mental health expertise; in other instances, the Case Manager was discouraged from screening and referring perinatal clients because “they had other confounding issues which Case Managers should be addressing which were not related to depression.” In other instances, the Case Managers were told to refer clients back to medical providers for further screening. The IHS Program Manager met with a mental health professional at Midtown Community Mental Health Center (Midtown) to address the concerns of Case Managers, and to implement a back-up system of care if a clinic’s primary mental health referral source did not provide adequate or timely service to IHS clients. At the meeting it was confirmed that IHS clients could be referred to Midtown, if other referral sources proved inadequate. IHS Case Managers were told to speak directly with Midtown staff when making a referral, to mention the client’s enrollment in IHS, and to let them know the
client’s pregnancy status. In addition to this action, there was an ongoing dialogue between IHS staff and providers of mental health services in Marion County to address the quality of--and access to--mental health services in the community. The biggest hurdle identified by mental health service providers is the lack of adequate resources to meet the demands of the community. Therefore, funding for depression screening and referral was added to the budget to ensure that Healthy Start clients have a dedicated referral source at Midtown.

Thirdly, transportation and childcare were also barriers for some clients. Case Managers and the CHW assisted clients in coordinating these services. Most clinics visited by clients offered bus tokens to those in need of transportation for clinic visits. MDWise, the Medicaid managed care plan that serves most clients, also offered transportation services to clinics. IHS offered transportation services to clients for other needs, including Consumer Connection Consortium meetings. Childcare was also available free of charge at consortium events. The expansion and improvement of transportation and childcare services for clients was an ongoing process. While clients’ needs were met on an individual basis, the goal was to have systems in place so that needed services could be accessed independently. Limited community resources kept this goal from being fully realized.

Due to the high prevalence of domestic abuse reported in Marion County, IHS provided specialized case management services to women who were victims of domestic abuse. All clients were screened for domestic abuse, and were referred to the Case Manager at Wishard Health Services who specialized in domestic abuse counseling. In the spring of 2002, IHS developed a collaborative effort with the Indiana Women’s Prison to provide domestic abuse victim services with the prison’s perinatal program. These services were also provided through Wishard Health Services. The Case Manager provided one-on-one counseling and case management services to women residing in the Indiana Women’s Prison who were pregnant and victims of domestic abuse. The Case Manager: 1) identified pregnant women who were victims of domestic abuse; 2) provided personalized safety plan/risk assessment for clients; 3) provided educational intervention to inform clients about all of the resources/options available to assist and guide her in decision-making skills regarding her situation; 4) provided an educational intervention to inform clients about resources available to get medical, social, WIC, and care coordination services for her pregnancy as she transitions out of the prison; 5) designed with client a plan to get coordinated services, 6) utilized DAP (description, action, plan) charting when documenting in the client’s chart at the Indiana Women’s Prison; and 7) provided a follow-up report to staff at the Indiana Women’s Prison upon client’s discharge to the community, to communicate client’s progress or reasons for termination. The Case Manager worked closely with the Prenatal Nurse at the prison to ensure that all necessary services are provided to clients. The Case Manager also provided a written safety action plan for women transitioning out of the prison, which included referrals to medical, social, legal, and other coordinated services in the community. Upon release, clients often experienced difficulties making the transition from prison, and were often tempted to resume many of the harmful behaviors that they struggled to overcome. Therefore, the services provided by the Case Manager during this transition period were extremely important to support client success. One client who made a successful transition after release was so grateful for the
Case Manager’s support that she wrote a letter to the prison thanking them for Healthy Start services.

Finally, a lack of adequate community resources facilitated successful implementation of case management services. In addition to IHS, there were three community-based care coordination teams with catchment areas divided geographically to serve all of Marion County (including IHS’s target population) that provide case management, outreach, and referral services. Better Indy Babies (BIBS) was affiliated with HealthNet, Inc., the largest Federally Qualified Health Center (FQHC) in Marion County. Great Beginnings was affiliated with the seven Wishard Health Services community health centers. The Marion County Health Department had four district health offices that also provided care coordination services. Unfortunately, these programs did not have the capacity to enroll all of the referrals they received, and budget cuts compounded this situation. For most of these programs, high caseloads impacted the frequency of contact with clients as well. IHS staff met with representatives of these organizations on a regular basis. Collaboration allowed for an exchange of training, data, and resources, in addition to ensuring that community resources were used to meet the needs of the greatest number of clients and preventing duplication of services. While each of these programs provided care coordination services to prenatal clients, IHS was the only program that provided the continuity of services with prenatal through interconceptional case management.

3. Health Education and Training
The goal of IHS health education services was to inform pregnant women, their partners, and the community about topics that promoted the best pregnancy outcomes. Health education was provided to both community and program participants. The community participant health education activities were focused on promoting key health disparity and health education messages that promote healthy pregnancies and address the leading causes of infant mortality in Marion County. The leading causes of infant mortality in Marion County included prematurity, birth defects, accidents, suffocation, and maternal complications. All IHS health education services were designed with the audience in mind. Activities were developed and materials were selected with respect to the client’s age, cultural background, primary language, reading/education level, and health education needs. Anyone providing health education through IHS, either to the community or to program participants, was required to: conduct client surveys, promote consumer involvement in consortium activities, participate in consortium trainings and local health systems action plan activities, and participate in cultural competency training.

**Health Education for Community Participants**
IHS subcontracted with 2 FTE Health Educators, one at ACTION Center, and one at Wishard Health Services Primary Care Center to primarily provide health education to community participants. All health education activities were supervised by the immediate supervisor at the educator’s site (the Director of the ACTION Center and the OB/GYN Clinic Manager at Wishard Health Services), and by the IHS Program Manager. The main tasks of IHS Health Educators were to provide community participants with appropriate and consistent health education, to develop education programs and materials as needed, and to collaborate with appropriate community agencies and coalitions to assist with
programming needs. The Health Educators also participated in activities such as car seat installation clinics, health fairs, and continuing education programs.

All methods of health education delivery were employed in conducting community health education activities – small and large group instruction, one-on-one instruction, written materials, community event participation, interactive, and media activities. Health educators presented at conferences, workshops, and community health fairs using methods that encouraged participant involvement. For example, at Consortium Consumer Connection meetings, Educators held participatory cooking demonstrations to show how to prepare quick and nutritious meals. The locations of health education presentations varied to meet the needs of the community participants. Group presentations and one-on-one sessions were held in a location accessible to participants. Most locations were on major bus lines, and in community clinics or other sites that provide easy access. Bus tokens and taxi service were provided as needed so participants can access health education at clinics, including Consortium Consumer Connection activities.

The preconception community health messages were based on the March of Dimes “THINK AHEAD” program that included the following:

- Take 400 micrograms of folic acid daily before conception and in early pregnancy. All women of childbearing age should take a daily multivitamin containing folic acid as part of a healthy diet rich in fortified foods (such as fortified breakfast cereals) and natural sources of folic acid. Natural sources include orange juice, green leafy vegetables, beans, peanuts, broccoli, asparagus, peas, lentils, and enriched grain products.
- Have a medical checkup before conceiving so your health care provider can evaluate your health and identify any health risks.
- If you’re not immune to chicken pox and rubella, check with your health care provider about getting vaccinated before you conceive.
- Achieve your ideal weight prior to pregnancy. Being over- or underweight may cause problems during pregnancy.
- Know your family history. If you’ve had problem pregnancies or birth defects in your family, you should talk to your health care provider and/or a genetic counselor when appropriate.
- Adopt a healthy lifestyle, get plenty of exercise, and don’t drink, smoke, or use drugs. Ask your health care provider if the prescription or over-the-counter drugs you use are safe to take during pregnancy and in the pre-pregnancy period.
- Treat medical problems like diabetes, epilepsy, and high blood pressure, and have them under control prior to pregnancy.
- Avoid exposure to toxic substances such as cleaning solvents, lead and mercury, some insecticides, paint thinners and removers, etc.
- Don’t eat undercooked meat or handle cat litter. They can cause toxoplasmosis, which can seriously harm a developing fetus.

A more detailed description of the educational services and topics offered by each Health Educator is provided below.
**ACTION Center Health Educator**

The IHS Health Educator at the ACTION Center provided education through group sessions and community event participation. Due to a growing rate of teen pregnancy in the community, the target population for ACTION Center was teenagers; therefore, an emphasis was placed on pregnancy prevention, in addition to the responsibilities of having a baby. ACTION Center provided health education to a minimum of 1,500 male and female teenagers in Marion County on an annual basis. Education was offered to teenagers through contacts with area schools, churches, and community agencies. The Health Educator presented the following pregnancy prevention and responsibility for having a healthy baby related topics during health education sessions: sexuality education, life skills, sexually transmitted diseases (HIV/STD), and communication skills, entry into first trimester care, regular prenatal care, prevention of birth defects—folic acid education, abstinence from smoking, alcohol, and illicit drugs during pregnancy, the importance of nutrition and breast-feeding, and the importance of immunizations.

**Wishard Primary Care Center Health Educator**

Wishard Health Services has seven OB clinic sites (all affiliated with the Indiana University School of Medicine) where health education was delivered. The clinic sites included: Blackburn Health Center, Cottage Corner Health Center, Forest Manor Health Center, Grassy Creek Health Center, North Arlington Health Center, Primary Care Center (where the Health Educator had an office), and Westside Health Center. Before Healthy Start funded the position, each clinic site provided health education differently. The inconsistency of the education that each patient received resulted in community frustration. In some cases, patients no longer sought care. The IHS Health Educator standardized curricula across the sites so that all patients received consistent, quality education within the same health care system. Furthermore, the Health Educator, representing IHS and the Department of OB/GYN of Wishard Health Services, built a strong relationship with IU Medical Group—Primary Care (IUMG-PC), which manages the outlying health centers. By keeping IUMG staff up-to-date on current health education standards and best practice approaches, the Health Educator improved patient delivery outcomes. During the year, the Wishard Health Educator worked with approximately 60 different OB/GYN—providers (staff doctors, residents and medical students, and nurse practitioners) to educate their OB-patients on a one-to-one basis. Program topics included: The importance of perinatal care and entry into first trimester care; Signs of preterm labor; Prevention of birth defects: Folic Acid Education; Abstinence from smoking, alcohol, and illicit drugs during pregnancy; Referral to smoking cessation education; Nutrition education; Breast-feeding education; Signs of postpartum depression; Child birth education/family preparation; Parenting topics; The importance of immunizations; Child-proofing the home; Child’s developmental stages; Having a smoke free home/environment; Preconceptional Care counseling: Think Ahead; Contraceptive education and choosing a method of birth control before leaving the hospital after delivery; Sexually transmitted diseases (HIV/STD); Weight loss; and SIDS prevention. To supplement the instruction that occurred at the Wishard Health Services OB Registration classes, a book titled *Tips for Two* was revised. The book contained tips for patients to help them in both the prenatal and postpartum stages of pregnancy. All prenatal patients received a copy of *Tips for Two*. 
To reach a broader segment of the community, the Health Educator partnered with the Marion County Health Department Social Work team to facilitate some of the parenting classes. Topics included: Getting to Know Your Child (bonding), Growing Child (child development), Setting the Limits Early (Discipline vs. Punishment), and Stress Management and Safety (coping with stressful matters and safety in the car and home). The classes were video-driven with support literature. The videos used were *I Am Your Child* and *Begin with Love*. The classes were offered at all clinic locations; the Health Educator met individually with patients upon request. Other classes offered included breast-feeding and infant feeding. The Health Educator was certified through Lactation Consultant Services as a breast-feeding educator. The certification course was 24 hours, concluding with an exam that required a score of 80% or higher to pass. In addition to instruction by the Health Educator, a video, *14 Steps to Breast-feeding*, was shown. Whenever possible, the video *Why Breast-feed?* was shown in waiting room areas to reinforce the importance of breast-feeding. The curriculum was developed by WIC.

Through effective collaboration with other community partners, the Wishard Health Educator was able to garner additional services and resources for clients. The list of collaborating partners includes the Marion County Health Department social workers, the Healthy Babies Consortium, March of Dimes, the Hispanic Project at Wishard, Automotive Safety, the Safe Kids Coalition, Fathers Resource Center, Sister Friends, and the American Cancer Society.

Consumers also received health education at the monthly Consortium Consumer Connection meetings and at the annual consumer conference. Consumer Connection meeting topics for 2004 included: child development, improving communication skills, breast-feeding, job readiness, advocating for health, selecting a childcare provider, shaken infant syndrome, infant mortality and FIMR (Fetal Infant Mortality Review), safe sleeping, Baby First Advocate Project, getting ready for home ownership, and consumer economics. Consumers suggested most of the topics presented. A consumer conference held May 1, 2004, covered topics that increased the health knowledge and skills of consumers, their families and the local community, as well as strategies to reduce infant mortality and healthcare disparities. Consortium Consumer Connection health education was provided by a variety of community partners. IHS utilized Indianapolis Healthy Babies Consortium partners, Marion County Health Department staff, and presenters from a variety of community organizations.

**Health education for program participants**

In addition to the health education provided to community participants, the subcontracted Case Managers (6 FTE) provided one-on-one health education to program participants. Case Managers also referred clients to group health education classes. Fathers, partners, and others providing support to the client were encouraged to attend both one-on-one and group health education sessions as well. Further, program participants received a copy of *Baby Basics* to use as a reference guide.

Core health education topics for perinatal case-managed clients included the following: the importance of prenatal care, physical changes during pregnancy, normal discomforts,
depression, domestic abuse screening, fetal growth and development, warning signs of pregnancy problems (including signs of preterm labor), signs of pre-eclampsia, gestational diabetes, communicable diseases, STDs/HIV, prevention of infection/self care, smoke-free pregnancy, avoidance of drugs and alcohol, nutrition/proper weight gain/prenatal vitamins, water intake, benefits of breast-feeding, WIC, importance of support system, father/partner involvement, exercise, safety, stress reduction, family planning, safe sleep, parenting, basic infant care, shaken baby syndrome, infant immunizations, and car seat information.

Core health education topics for interconceptional case-managed clients included the following: normal postpartum changes, care and hygiene, postpartum appointment, depression screen, rest and activity, breast-feeding, WIC, nutrition, work/school plans, child care plans, sibling rivalry, family planning, STDs, substance abuse, immunizations, positive health behaviors (Pap, breast), inter-pregnancy period, social wellness (stress, support), and the importance of multivitamins.

Core health education topics regarding infants included the following: well child visits, immunization schedule, signs of illness, treatment of minor illness, normal child development, normal infant behaviors, nutrition, infant care, parenting, bonding, who and when to call for help, WIC, SIDS and safe sleep, shaken-baby syndrome, and car seat safety.

**Continuing Education Training**

IHS staff, consortium members, and health care providers received health education training at quarterly IHS meetings, special training sessions held throughout the year based on need, HRSA technical assistance trainings or Webcasts, and through the consortium. Each quarterly consortium meeting contained an educational component, as did each monthly consumer connection meeting. Staff were encouraged to attend professional development training, and funds were budgeted for this purpose. Maternal and Child Health Partners, such as Indiana Perinatal Network, March of Dimes, and the Indiana State Title V program, typically partnered three to four times a year to sponsor professional development conferences featuring nationally renowned speakers. Health care providers and consortium members were also encouraged to attend these conferences. In addition to these educational opportunities, staff were expected to pursue skill development training on an annual basis. A continuing education record was maintained by all staff, and was submitted quarterly to coordinators for review. Administrators informed staff of training opportunities, and facilitated attendance.

4. **Interconceptional Care**

Outreach and health education staff conducted community education about the importance of interconceptional care and planning for pregnancy to optimize birth outcomes. Clients and community participants were invited to attend Consumer Connection meetings to learn more about interconceptional care and to develop a support system. However, the subcontracted Case Managers predominantly provided IHS interconceptional care. All IHS postpartum participants were eligible for interconceptional care.
IHS enrollment was based on the mother. Once the mother was enrolled, the needs of the children were assessed and addressed as well. IHS coordinated care for infants, toddlers, and siblings living with the mother. All infants and toddlers received care that was based on need; however, the number of times a Case Manager interacted with a family depended on the risk level assigned to the mother. If an infant had needs that required additional services, the Case Manager initiated more frequent contact with the mother. IHS did not level the infant; however, the mother’s level would increase due to the needs of the infant or family. The infant’s physical, cognitive, social, and emotional growth and development was assessed at interconceptional care visits. Health care professionals also provided guidance to the family on anticipated tasks development and associated behaviors. In a few instances, mothers were enrolled in interconceptional care case management (even if they were not enrolled while pregnant) because they were deemed to be at high risk for future high-risk pregnancies. Children were provided case management services through IHS even though it was the mother who was enrolled in the program. The criteria for a mother to enroll in interconceptional care, if not already enrolled during the prenatal period, was an interconceptional risk assessment level of 2 or 3. For example, a mother with an infant born with a birth defect or other special needs would qualify using the risk assessment criteria. If risk assessment showed a mother would not qualify for case management services, she was referred to interconceptional health education as a community participant.

At each interconceptional encounter, the needs of both mother and infant were assessed, and appropriate health education and counseling were provided. Referrals to needed services were also made for both mother and baby. Mothers of newborns were provided information about injury and illness prevention, nutrition, oral health, family relationships, and environmental health factors such as secondhand smoke, lead, poisons, and other hazards. *The Bright Future Guidelines for Health Supervision of Infants, Children, and Adolescents, Second Edition* was used as the primary curriculum guide.

In an effort to reduce the high rate of unintended pregnancy in the community, Case Managers had an initial discussion with clients regarding family planning prior to delivery, with the goal of preparing the client to leave the hospital after delivery with supplies. This issue was also addressed at the postpartum visit with the provider and Case Manager. Optimal time for baby spacing was also discussed with the client before delivery and again in the postpartum period. A client’s family planning method was assessed at each interconceptional visit and was documented in the database.

Additionally, well child visits were monitored. Case Managers documented the date of the first well child visit (a visit within four weeks of birth) in the database. They also discussed the importance of the first well child visit prior to delivery. Case Managers planned a visit with the mother within four weeks of delivery. If the child had not been seen by then, the Case Manager facilitated getting the infant into the clinic. To encourage compliance, most Case Managers arranged to meet with the client at the clinic in conjunction with the visit. Case Managers were also required to document whether or not the infant had a medical home. In most cases, Case Managers facilitated getting the infant into a medical home prior to delivery. The process usually involved assisting the client with insurance paperwork and establishing the client with a clinic or pediatrician.
Education and follow up on immunizations was done in accordance with the immunization schedule of the United States Public Health Service, Centers for Disease Control, and Prevention ACIP Guidelines. Realizing that parent recall of up-to-date immunization status was often unreliable, IHS made every effort to obtain official medical records as documentation of immunization status. To track immunizations, IHS protocol required Case Managers to ask parents to bring shot records to every visit. If clients were behind on shots, Case Managers referred the infants to immunization clinics. If parents didn’t have shot records, Case Managers were required to obtain a copy from the clinic where shots were given. Clinic or physician’s name and address were obtained from the parent. Case Managers with clients who got shots at multiple clinics were instructed to obtain a signed parental consent form granting permission to obtain immunization records from those clinics. Obtaining documentation of immunizations proved to be a challenge for Case Managers. Clients reported that some clinics did not provide parents with the updated immunization record at each visit. In 2004, additional linkages were established to access immunization data, including establishing a linkage with the Indiana State immunization database, and gaining access to Insight, an electronic medical record database for patients receiving services at Wishard Health Services that included public health clinics. Clinic billing systems were also accessed as a last resort to obtaining immunization information. While these measures increased access to immunization data, record scatter continued to be a challenge.

Case Managers also assessed the needs of other children living with clients and made referrals to services needed. Additionally, the IHS Case Managers provided referrals to Healthy Families and First Steps for children at risk of abuse and neglect, and/or children experiencing developmental difficulties. Case Managers also facilitated access to childcare and transportation support services. Clients were encouraged to attend Consumer Connection meetings, where they learned more about topics of interest and developed a support system with other Healthy Start clients. Table 2 is a list of needs assessed, and health education and counseling provided to the mother.

<table>
<thead>
<tr>
<th>Needs Assessment Mother</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum Health</td>
<td>WIC - Needs</td>
</tr>
<tr>
<td>Mental Health</td>
<td>WIC - Receiving</td>
</tr>
<tr>
<td>(depression/emotional/stressors)</td>
<td></td>
</tr>
<tr>
<td>Drug Use - Never Used</td>
<td>WIC - Not Eligible</td>
</tr>
<tr>
<td>Drug Use - Reduced</td>
<td>Financial Assistance (TANF, Food Stamps, Trustee)</td>
</tr>
<tr>
<td>Drug Use - Quit</td>
<td>Health Insurance</td>
</tr>
<tr>
<td>Drug Use - NC</td>
<td>Medical Home</td>
</tr>
<tr>
<td>Alcohol Use - Never Used</td>
<td>Women's Health Visit - Needs</td>
</tr>
<tr>
<td>Alcohol Use - Reduced</td>
<td>Women's Health Visit - Completed</td>
</tr>
<tr>
<td>Alcohol Use - Quit</td>
<td>Health Issues</td>
</tr>
<tr>
<td>Alcohol Use - NC</td>
<td>Breast-feeding Problems</td>
</tr>
<tr>
<td>Smoking/Secondhand Smoke - Never Used</td>
<td>Family Planning</td>
</tr>
<tr>
<td>Smoking/Secondhand Smoke - Reduced</td>
<td>Concerns/Needs</td>
</tr>
<tr>
<td>Smoking/Secondhand Smoke - Quit</td>
<td>Smoke Free Environment</td>
</tr>
</tbody>
</table>
Table 3 is a list of needs assessed, and health education and counseling provided pertaining to the infant.

<table>
<thead>
<tr>
<th>Needs Assessment Infant</th>
<th>Counsel &amp; Educate Infant</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Health</td>
<td>Medical Home</td>
</tr>
<tr>
<td>Development</td>
<td>Immunizations</td>
</tr>
<tr>
<td>Basic Care</td>
<td>WIC</td>
</tr>
<tr>
<td>Basic Care Items</td>
<td>Sleeping Position</td>
</tr>
<tr>
<td>Feeding</td>
<td>Physical Exam</td>
</tr>
<tr>
<td>Elimination</td>
<td>Health Insurance</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Counsel &amp; Educate Infant</strong></td>
</tr>
<tr>
<td>Well Child Visits</td>
<td>Infant Care (Cord, Circumcision, Bathing, Elimination)</td>
</tr>
<tr>
<td>Immunization Schedule</td>
<td>Parenting, Bonding</td>
</tr>
<tr>
<td>Signs of Illness</td>
<td>Who/When to Call for Problems</td>
</tr>
<tr>
<td>Treatment of Minor Illness</td>
<td>WIC</td>
</tr>
<tr>
<td>Normal Child Development</td>
<td>Health Insurance</td>
</tr>
<tr>
<td>Normal Infant Behaviors</td>
<td>First Steps</td>
</tr>
<tr>
<td>Infant Nutrition/Feeding Problems</td>
<td>Safe Sleep &quot;Back to Sleep&quot;</td>
</tr>
<tr>
<td>Normal Weight Gain</td>
<td>Shaken Baby Syndrome</td>
</tr>
<tr>
<td></td>
<td>Car Seat Safety</td>
</tr>
</tbody>
</table>

The frequency of contact with clients and the appropriate level of intervention were based upon a risk assessment. The level of highest risk documented during assessment determined a client’s care level. The interconceptional care client, based upon the risk assessment, was assigned a level, IC1-IC3, with IC3 being the level of highest risk. Minimum contact was required depending on a client’s assigned level. Level IC3 required a postpartum visit within one month of delivery, followed by one contact every
month until the child was two years of age. Level IC2 required a postpartum visit within one month of delivery, followed by one contact every two months until the child was two years of age. Level IC1 required a postpartum visit within one month of delivery, followed by one contact every quarter until the child was two years of age. Table 4 is the Interconceptional Care risk assessment tool for IHS.

<table>
<thead>
<tr>
<th>Table 4. Interconceptional Care Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 3</strong></td>
</tr>
<tr>
<td>Very Low Birth Weight Infant - &lt; 1,500 grams</td>
</tr>
<tr>
<td>Low Birth Weight Infant - 1,500 – 2,500 grams</td>
</tr>
<tr>
<td>Smoking/Secondhand Smoke - Daily</td>
</tr>
<tr>
<td>Infant with Genetic Disorder</td>
</tr>
<tr>
<td>Infant with Fetal Anomaly or Birth Defect</td>
</tr>
<tr>
<td>Fetal loss (current pregnancy)</td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
</tr>
<tr>
<td>History of Infant Death - SIDS</td>
</tr>
<tr>
<td>History of Infant Death - Non-SIDS</td>
</tr>
<tr>
<td>Short Inter-pregnancy Period (&lt;12 months)</td>
</tr>
<tr>
<td>Drug Use - Occasional</td>
</tr>
<tr>
<td>Alcohol Use - Occasional</td>
</tr>
<tr>
<td>Smoking/Secondhand Smoke - Occasional</td>
</tr>
<tr>
<td>Eclampsia</td>
</tr>
<tr>
<td>Diabetes</td>
</tr>
<tr>
<td>Sickle Cell Anemia or Hemoglobinopathy</td>
</tr>
<tr>
<td>Asthma</td>
</tr>
<tr>
<td>Primigravida, &lt; 17 Years or &gt; 35 Years Old</td>
</tr>
<tr>
<td>Infections</td>
</tr>
<tr>
<td><strong>Level 1</strong></td>
</tr>
<tr>
<td>Low Literacy/Language Barrier</td>
</tr>
<tr>
<td>Partner History of Sexually Transmitted Infection</td>
</tr>
<tr>
<td>Lack of Family/Partner/Social Support</td>
</tr>
<tr>
<td>Lack/Inadequate Health Insurance</td>
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</table>

IHS case management protocol required a postpartum visit with the client within six weeks of delivery. Case Managers documented the date of the postpartum clinic visit in the IHS database. Monthly reports were run to determine which clients were candidates for follow up. If necessary, the Case Manager worked with the client to remove any barriers that prevented her from attending the postpartum visit. Case Managers facilitated getting a client into a medical home whenever possible. For clients who did
not have a postpartum visit, or who did not have a medical home, a Community Health Worker was assigned to make a home visit to work with the client to eliminate barriers. Outcomes of those visits were monitored to ensure that services were obtained.

While retention of case managed clients was not generally an issue during the prenatal period, staff was alerted to the need to make extra efforts to retain clients in interconceptional care. Reasons for termination varied. However, many clients believed they no longer required case management services since their pregnancy was over. To aid retention, IHS staff reviewed interconceptional content in an effort to enhance services so clients would value interconceptional services as beneficial to the mother as well as the child. Interconceptional care became focused on the health of the family across the lifespan with the notion that the health of the mother directly impacted the health of the family. As a result, all interconceptional clients received *A Lifetime of Good Health* guide to staying healthy, produced by the National Women’s Health Information Center. The guide included health education on a variety of topics, recommended screenings for various age ranges, and a list of Medicare covered preventive services. Case Managers discussed prevention as well as any specific health condition a client needed to monitor. Also, a Community Health Worker was hired to focus on the needs of interconceptional care clients. Staff monitored client outcomes, such as intervals between pregnancies. Reports generated from the IHS database helped staff monitor interconceptional clients’ activities more closely to ensure that services were provided.

5. **Depression Screening and Referral**

Health education about depression signs and symptoms, dangers of perinatal and postpartum depression, and the need for depression screening were provided by Case Managers to all of IHS program participants. This group also received perinatal and postpartum screening. Also, outreach and health education staff provided health education about depression signs and symptoms and postpartum depression at public presentations to raise awareness among community participants. Depression and access to mental health services was also discussed at Consumer Connection meetings. IHS staff participated annually in the MCHD Mental Health Awareness Day, where staff and the public received depression education and screening. Case Managers conducted all depression screens for IHS using the Edinburgh Postnatal Depression Scale (EPDS). The Case Managers, who were social workers, domestic abuse counselors, or nurses, received training on use of the screening tool and how to refer clients to screening and treatment. They also received training on what to do if someone contemplated suicide. Women identified as high-risk for depression were referred to mental health providers for further in-depth assessment and treatment. The mental health providers included: 1) MCHD Social Services Department; 2) Wishard Mental Health Services through Midtown Community Mental Health Center; and 3) local private providers based upon the client’s chosen hospital system and insurance coverage. To facilitate entry into further assessment or treatment for clients with a positive screen, IHS Case Managers referred clients to mental health professionals and followed up on outcomes.

Using the EPDS, every IHS program participant (approximately 400 annually) received a minimum of two depression screenings: one baseline screening while pregnant and one
postpartum. Depression screenings were to be completed by all IHS case managers for prenatal and interconceptional clients using the following protocol:

1) Conduct a baseline depression screening by the third Healthy Start visit. All clients must have a baseline depression screening prior to delivery, preferably by the end of the second trimester. Document dates and outcome (score) of the screening.

2) Conduct a postpartum depression screening at the first postpartum visit, to be completed by six weeks after delivery. Conduct another screen at six months if client is still in interconceptional care.

3) If a client receives a score of 12 or greater, a referral for treatment is required.
   a. Document the referral in the database.
   b. Follow up with the client in a timely manner to make sure the referral was completed. (The timeframe for follow-up is based on the severity of the situation and the professional judgment of the case manager.)
   c. Document in the database that the referral was completed.
   d. Monitor the client and administer another depression screening once the client has completed treatment.
   e. Document date and score in the database. (Repeat the procedure for referral if the score is 12 or greater.)

4) The original white copy of the EPDS is placed in the client’s chart, and one copy of the EPDS is given to the Quality Assurance Coordinator at the next monthly site visit. If the client is referred for additional screening and treatment, the final copy is sent with the referral.

5) The Case Manager may conduct additional screenings at any time, using their judgment, based on changes in the client’s mood, affect, or life circumstances, which may indicate risk of depression.

6) Follow the MCHD protocol for suicide if warranted.

In addition to the English version, IHS implemented a Spanish language version of the EPDS that was introduced and conducted by bilingual staff. Also, Case Managers were sensitive to the comfort level of clients who may see depression as a sign of weakness, or who were apprehensive of mental health services in general. They provided a supportive environment for open discussion and education. The Community Health Worker, who shared the same cultural backgrounds of most clients, also screened clients for depression.

Clients with a positive screen (scoring 12 or more on the EPDS) were referred to the mental health services provided through the medical home. Protocol required Case Managers to follow up with clients to ensure that screening and treatment was received at the medical home, and that care was satisfactory. Medical homes included Methodist Hospital (for HealthNet, Inc. clients), and Wishard Health Services, where services were provided through Midtown Community Mental Health Center (Midtown). All IHS clients had access to one of these hospital systems. Clients with a positive screen were referred to their medical home for further assessment. Both of the hospital systems where clients received services offer a full range of mental health services, including depression screening, individual and group counseling, psychotherapy, psychiatric consultation, medication, and hospitalization. Added to the budget for 2005-09 was
funding for a dedicated counselor at Midtown trained to provide further assessment and treatment for depression for IHS clients. Funding was added to ensure that clients would not have to wait too long for services, a problem identified in 2003-2004. By designating a trained counselor to help clients navigate the system, Healthy Start clients with a positive score should receive all necessary services in a timely manner.

IHS protocol required Case Managers to document all mental health referrals and their outcomes in the IHS database. Referrals to mental health services had to be followed up in a timely manner. Case Managers either ran a report from the database using the client’s name—which indicated any outstanding referral for the client—or they ran a report tracking outstanding referrals for all clients. Additionally, IHS administrators collected a copy of the completed EPDS at monthly quality assurance site visits. This allowed further monitoring of the referral status, as well as monitoring the volume of positive screens. If necessary, Case Managers talked with clients and providers to ensure that appropriate services were received. If a client did not follow through and receive services, the Case Manager worked with the client to eliminate any barriers to doing so.

The extensive paperwork required to get clients into mental health care has been identified as a barrier to completing referrals for some clients. To address this issue, IHS staff were given a list of the required documentation clients must provide to qualify for mental health services. Case Managers went over this list with clients who were going for mental health services to ensure that they had all the necessary documentation. If unsuccessful in eliminating barriers, Case Managers contacted the client’s medical care provider or the subcontracted counselor for assistance. Case Managers also followed up with clients to confirm satisfaction with care and to re-screen clients (using the EPDS) upon completion of treatment to make sure that the client was no longer at risk.

IHS used the EPDS for postpartum depression screening since October 2002. However, no tracking system was in place at the beginning to monitor screening. In 2003, new administrators initiated an overhaul of the database to include depression screening and referral tracking. Additionally, IHS began to use the EPDS tool to screen perinatal clients based on training received from the national Healthy Start program-sponsored Webcast. While experts on the Webcast reported that the tool had been tested for perinatal use, few in the local mental health community were aware of this research. There was also considerable debate by some providers as to whether or not screening perinatal clients was even beneficial. IHS administrators and staff provided training to area mental health professionals to reduce these barriers. IHS Case Managers also reported long wait times for clients to be seen, and have, on occasion, been concerned about the quality of service. In some instances, the mental health services were overburdened, and in other instances staff providing services to clients were not qualified to serve pregnant women. In fact, few providers had received training in providing mental health services specific to pregnant women. To address these issues, IHS collaborated with Midtown, which agreed to be a back-up system for clients who could not receive a timely appointment at their medical home, or who had experienced unsatisfactory care. Midtown staff have been trained to provide services to pregnant clients, and were qualified to meet IHS client needs. As a further step to address concerns, IHS staff met with representatives of the Marion County Health Department’s
Social Work Department to discuss access and quality of care issues. The social workers collaborated with Midtown, and worked closely with all mental health providers in Marion County. They agreed to assess the training of staff providing mental health services to pregnant clients and to develop a referral list of providers in Marion County who specialize in providing services to pregnant women.

B. Core Systems-building Efforts

1. Local Health System Action Plan for Comprehensive Perinatal Care

The Indianapolis Healthy Babies Consortium (IHBC) worked to improve the health status of women, infants, and families in the community through the implementation of the local health system action plan (LHSAP). The LHSAP, locally referred to as the Indianapolis Healthy Babies Consortium Strategic Plan, was designed to ensure that quality services were provided to the target population, and to develop an integrated service delivery system in Marion County. This approach was taken to serve the community’s need to better coordinate appropriate resources for clients and to better allocate community resources without duplication of services. The LHSAP was used as a guide to focus community-wide efforts to improve the existing perinatal health care system, to address the main causes of infant mortality in Marion County, to reach Healthy People 2010 goals, and to address a variety of issues identified through the collection of new data gathered from multiple sources. The LHSAP provided direction for consortium workgroups, IHS programming, healthcare systems providing prenatal services, and collaboration between all community partners. Each member of the consortium was responsible for implementing the LHSAP recommendations as they pertained to their organization. Also, it was the responsibility of the Consortium Coordinator, IHS staff, and Title V staff to promote activity on the LHSAP and to assess its progress. Through LHSAP, consortium partners coordinated and improved services for pregnant women, their partners, and the community.

Key stakeholders were recruited to participate in the Indianapolis Healthy Babies Consortium meetings that were held on a quarterly basis. Partners were involved in implementing and prioritizing LHSAP activities. Partners included consumers, representatives of IHS and the subcontracting health care organizations, Marion County Health Department, Indiana State Department of Health (Title V) Maternal and Child Health Division, March of Dimes, Indiana Perinatal Network, prenatal care providers, hospitals, health insurance organizations, and other community organizations. The Consortium Coordinator led the development and implementation process. The plan was revised annually. To prioritize the needs of the community in the LHSAP, the consortium members:

1) Monitored Marion County’s progress in attaining the Healthy People 2010 goals,
2) Conducted periodic community focus groups to assess the experience of women receiving prenatal care in Marion County,
3) Surveyed local prenatal providers to assess knowledge of community services, practice characteristics, provider concerns, and gaps in services,
4) Utilized PPOR, FIMR, focus groups, surveys, Mini PRAMS, Indiana State Title V Needs Assessment, and other appropriate methodology to detect changes in the local preventable causes of infant mortality,
5) Ensured that each consortium intervention had an evaluative component to assess impact, and
6) Served on various workgroups that are responsible for the implementation of the plan.

Individual members of the consortium worked diligently to implement many of the objectives cited in the plan. However, partners admitted that progress was impacted by a competitive environment where resources and programs were being cut. A change in key players in several organizations made continuity a challenge. New IHS staff had to develop relationships with community partners, and new partners were continually being recruited. Multiple priorities competed for IHS staff time, limiting attention given to the LHSAP. To ensure that the LHSAP remains a truly dynamic process, staff from member organizations need to be able to devote more time to identify resources and promote system changes. To address these challenges, the plan for IHS staff to continue progress on the LHSAP included:

1) Participating in ISDH Title V needs assessment planning, and prioritizing LHSAP goals as needed based on the needs assessment outcomes.
2) Participating in the Indiana Access project focusing on access-to-care issues.
3) Introducing PPOR to the consortium, and using data to help direct efforts.
4) Continuing close collaboration with the IHBC Coordinator to monitor LHSAP progress.

In 2003, the Indianapolis Healthy Babies Consortium shared information with community partners that showed the percent of Marion County babies born with low birth weight, 2,500 grams (5.5 pounds) or less, was 8.9% in 2002 (last available data when reported). Very low birth weight births were 1.6%, and premature births were 11%. The five leading causes of infant deaths were prematurity, low birth weight, congenital anomalies, accidents, and maternal complications of pregnancy. The leading cause of infant death among White, Hispanic, and African American infants was prematurity. The number one cause of death in Marion County for infants before their first birthday was prematurity. African American infants in Marion County were at a 2.7 times higher risk of dying prior to their first birthday, as compared to White infants. Also, research showed that some of the health consequences of smoking during pregnancy included an increased risk of delivering a low birth weight infant, an increased risk of SIDS, and an increased risk of respiratory infections and diseases affecting the newborn. The Centers for Disease Control and Prevention estimated that in 1996 the direct neonatal care costs associated with maternal smoking paid by Medicaid was more than $227 million dollars. Data showed the maternal smoking rate among all races in Marion County was 7% higher than the national average of 12.3%.

With the LHSAP as a framework, and the data as a guide to prioritize action, the consortium decided to focus workgroup activity on closing the disparity gap among African American, White, and Hispanic infants by focusing on issues related to prematurity, low birth weight, and very low birth weight. The following activities were conducted to accomplish LHSAP goals:
• February 2003: “SIDS and Smoking” workshop sponsored by United States Representative Julia Carson’s office.
• March 2003-June 2003: Public Service Announcements about prematurity and infants with low birth weights were aired. Radio stations targeted minority populations (White Appalachians, Hispanics, and African Americans).
• April 2003: Healthy Babies Consumer Celebration. Community outreach activity provided consumers with information on breast-feeding, signs of preterm labor, and child development.
• August 2003: Breast-feeding advertisement placed in the Indianapolis Recorder, a newspaper that informs African Americans in the community about issues affecting their ethnic group.
• August 2003: Partnering with WIC Program for ongoing breast-feeding education.
• August 2003: Training of Healthy Start and Maternal and Child Health Program staff on local smoking cessation education program.
• October 2003: Healthy Babies workgroups revealed action plan for local community based on recommendations for reducing smoking during pregnancy, prematurity, and infant mortality among Whites, African Americans, and Latinos.
• January 2004: Evaluation of implemented workgroup action plans.
• March 2004: Development of workgroup plans based on recommendations from 2003 perinatal, infant and outcome data.

Below are additional activities based on plan objectives that were conducted between September 2003 and March 2005.

• Approximately 2,000 brochures have been distributed among 25-30 Consortium members and the agencies they represent. The brochure has been translated to Spanish and approximately 500 have been distributed among 25-30 Consortium members and the agencies they represent. Copies of the English and Spanish versions of the brochure will be mailed to approximately 400 family physicians no later than December 2005.
• Approximately 20,000 fact sheets have been distributed among Consortium members and the agencies they represent, health fairs where MCHD is represented and Indiana Black Expo. The fact sheet has been translated in Spanish and approximately 500 have been distributed.
• A half-day seminar was held on March 18, 2005 that focused on smoking throughout the life cycle, fad diets and chronic diseases. One hundred and twenty women from ranging from 18-80 years of age attended the event.
• Focus groups regarding access to care issues were held throughout the local community and other counties in Indiana. Results will be presented at the National Friendly Access Conference that will be held in Indianapolis (9/05).

Additional interventions related to reducing prematurity, low birth weights, very low birth weights, and the leading causes of infant mortality included recruiting women into prenatal care in the first trimester of pregnancy, educating women about the benefits of taking folic acid during childbearing years, and distributing folic acid at WIC sites. Consortium partners participated in strategic planning lead by Indiana Access to highlight access-to-care issues. With this project, stakeholders addressed several recommendations by focusing on one issue. Additionally, IHS, in conjunction with consortium partners, was involved in the ISDH needs assessment for the State Title V action plan conducted in 2004 to help identify priority areas. Consortium partners such as the March of Dimes, ISDH, Indiana Perinatal Network, Extended Food Nutrition Program, and other community agencies assisted with additional projects, initiatives, and activities related to the local health system action plan. Funding for LHSAP interventions was provided by Consortium partners, including IHS, in conjunction with funding provided by MCHD for the Consortium Coordinator and workgroup activities.

2. Consortium
During the mid 1980s, it was disclosed that Indianapolis had the highest African American infant mortality rate among comparable cities, and that its overall infant mortality rate was one of the highest in the country. The distressing infant mortality rates did not represent how the citizens of Marion County, its leaders, and health care providers wanted their city to be known. Business, political, and community leaders united to raise community awareness about the issue, develop and implement a work-plan, and mobilize the community’s resources to reduce the county’s infant mortality rate. The successful efforts of this initial public-private partnership led to the establishment of the Indianapolis Healthy Babies Consortium (IHBC). The overall goals of the consortium focused on developing strategies and implementing successful interventions to address the preventable causes of infant mortality and improve the health status of mothers and babies in Marion County. As many of the key maternal and child health partners were already members of the IHBC, IHS partnered with the IHBC instead of developing a separate consortium in the community that would duplicate efforts. IHBC has been actively involved in the Healthy Start Project since 1997, when it was first funded as an adolescent intervention. Partners that have consistently participated in IHBC included Indiana State Department of Health (Maternal and Child Health Division), Indiana Perinatal Network, Central Indiana Chapter of March of Dimes, Marion County Heath Department, and WIC. IHBC participated in county, state, and national activities in coordination with these organizations. IHBC currently lends its full support to the IHS program.

The Indianapolis/Marion County community has a long history of collaboration with community organizations in the IHBC. However, many consortium partners shared the same problem of maintaining quality personnel and funding. Therefore, a major barrier for consortium progress was staff turnover and changing organizational priorities due to
reduced funding. Community organization partners were stretched thin between scarce resources and staff to work on consortium projects, making it difficult to accomplish both organizational and consortium projects. As with most collaborative endeavors, the same dedicated individuals were the main participants in consortium activities, and other key members participated irregularly. Key leadership at some of the major health care systems chose not to become involved in consortium activities, which limited dialogue and interaction between consumers and these organizations. In spite of these limitations, the IHBC has earned a reputation in the community as an action-oriented organization and the leading forum for dissemination of maternal and child health information.

Maternal and infant health issues affecting the local community were addressed through quarterly full-body IHBC meetings held in January, April, July, and October of each year, and through monthly consumer and consortium workgroup meetings. At the quarterly meetings, speakers from the local community gave presentations on topics relating to combating the leading causes of infant mortality in the local community. Disparities were also highlighted. Presenters were recruited from IHS, the Marion County Health Department, and other consortium partners including various community-based agencies. Consortium members were encouraged to participate in workgroups and local educational opportunities such as seminars, conferences, and symposiums that address maternal and infant health issues impacting the community. The consortium sponsored eight specialty workgroups (consumers, nutrition, education, smoking elimination, depression, substance abuse, friendly access, and domestic abuse) that met monthly to accomplish tasks outlined in the LHSAP. The workgroup format was implemented to allow consortium members to contribute in their area of expertise and to maintain focus on issues impacting infant mortality and disparities in the community. Workgroup members collaborated with local agencies to plan and present educational opportunities in the community, or to coordinate services. Topics addressed at workgroup meetings included child safety, personal safety, fitness, smoking cessation, birth defects, prematurity, child development, gun/television violence, domestic abuse, and healthy eating for the family. Local statistics and other relevant data were presented at these meetings. In March 2005, consumers had an opportunity to attend “Moms Bring Your Moms,” a half-day seminar that focused on intergenerational health issues sponsored by IHBC. The IHCB Coordinator organized all consortium activities. The Coordinator was a maternal and child health employee, supervised by the IHS Director, and funded by the Marion County Health Department. Consortium workgroup activities were funded by MCHD, IHS, and other partners. Collaboratively, Consortium partners sponsored larger events such as conferences. IHS staff regularly served on workgroups and participated in all IHBC activities.

Annually, the LHSAP, or strategic plan for the consortium was evaluated. Consortium activities were prioritized based on accomplishments, resource availability, and local data presented to the Consortium. Members were encouraged to present their latest work at quarterly meetings. Findings from local research including, FIMR, PPOR, Mini Prams, and Indiana Access Focus Groups were disseminated at Consortium meetings. All members were given the opportunity at each full-body meeting to share lessons learned, give program updates, or to ask for assistance from others. This allowed members to
align their activities with others based on common interests, to reduce duplication of services or to locate valuable resources, and to share the considerable expertise that resides in the Consortium. A major strength of the community was the variety of organizations that provided services to clients. The barrier was in coordinating services for clients. The Consortium was instrumental in showcasing organizations and available services, so appropriate referrals could be made. It also provided a forum for organizations to allocate resources based on identified need. This became more valuable over time as budget cuts impacted several organizations. In one instance, local legislators were about to cut funding for the Expanded Food and Nutrition Program. Consortium members contacted legislators and spoke of the program’s value in our community and to clients. Funding for the program was continued.

There were 69 active consortium members. The following was the percentage of members by category:

- 28% (20) state or local government (G)
- 4% (3) program participants (PP)
- 18% (12) community participants (CP)
- 10% (7) community-based organizations
- 9% (6) private agencies or organizations - not community-based (PAO)
- 13% (9) providers contracting with the Healthy Start program (PC)
- 18% (12) other providers (OP)
- 0% (0) others - specify

All efforts were made to maintain active members and to increase participation through recruitment efforts. To encourage member activity, advanced meeting notices with RSVP requests were sent, with follow-up reminder phone calls or e-mail messages several days prior to meetings. Program updates were provided at monthly Maternal and Child Health and quarterly Healthy Start meetings. Consortium members provided input and had a vested interest in the development of the strategic plan and in accomplishing the outlined goals and objectives.

The racial/ethnic breakdown of the consortium by percentage was as follows:

- 46% African American
- 0% American Indian or Alaskan Native
- 2% Asian
- 2% Hispanic or Latino
- 0% Native Hawaiian or Pacific Islander
- 50% White

The processes used to ensure that membership in the consortium was culturally representative for both providers and consumers included: 1) the recruitment of consortium co-chairpersons who had ties to the African American, Latino, and mental health communities; 2) Healthy Start subcontractors extended personal invitations to those consumers receiving Healthy Start services at their respective clinics; 3) Consumer Connection meetings were held at an inner city community health clinic, which drew members from the surrounding community; 4) advertising of the consortium at cultural activities hosted by the city (i.e. Indiana Black Expo, La Fiesta, etc.) and at health fairs where the Marion County Health Department participated; 5) recruitment for consumer
participation was conducted at community organizations that served diverse population groups (i.e. WIC sites, community health centers, community service centers, Hispanic Center, beauty salons, grocery stores, churches, and daycare centers); 6) media campaigns on local radio stations that served the Indianapolis area to increase consumer participation; 7) continuous recruitment of new members by the Consortium Coordinator at various activities/events within the Indianapolis community, and 8) mass mailings to local homeowner associations, apartment complexes, and community groups.

In the beginning, consumer involvement in the consortium was limited. In 2003 the new management team met with the IHBC Coordinator to address the issue of consumer involvement. To encourage greater consumer participation in consortium activities, the consortium began holding monthly consumer workgroup meetings for consumers that were funded by IHS. The objectives of the meetings called the “Consumer Connection” were to: 1) create a support system for consumers; 2) develop consumers’ sense of self, personal skills, and motivation to help themselves reach identified life goals; 3) encourage personal responsibility for health; 4) promote health education about the leading causes of infant mortality in Marion County; 5) enlist consumer participation in community advocacy to reduce infant mortality, and enroll friends, neighbors, family, and community members in IHS; and 6) encourage consumers to participate in all consortium activities and becoming Baby First Advocates in their communities. The two-hour meetings were held monthly at an urban clinic with easy access for consumers. Transportation if needed, childcare, and light refreshments were provided. Recruiting consumers for participation in consortium activities was a priority. Consumers received monthly reminders and phone calls for upcoming meetings, and were placed on a mailing list after attendance at one meeting. Consumers were actively recruited at Healthy Start sites, community health centers, WIC sites, by Healthy Families staff, social service agencies, and other IHBC partner organizations. For each session, a recruitment flyer was developed to advertise the program. IHS case managers, outreach staff, and health educators all advertised the programs. Consumers determined meeting topics. There was usually an educational component to the meeting related to the topic. Incentives were provided that typically related to the topic. For example, the fire department donated smoke detectors and fire extinguishers at a home safety discussion. Incentives were provided that typically related to the topic. For example, the fire department donated smoke detectors and fire extinguishers at a home safety discussion. Topics discussed at Consumer Connection meetings focused on the major concerns of pregnancy and parenting. Topic examples included: The impact of stress on pregnancy and prematurity, Signs of depression/importance of depression screening and treatment options, Importance of healthy eating habits for the family, Importance of folic acid and its role in the prevention of birth defects, Update on sexually transmitted diseases and treatment options, Signs of domestic abuse, Promotion of boundaries in relationships, SIDS/Safe Sleeping, Car Seat safety, Child-proofing your home, and Poison control prevention.

Presenters for the Consumer Connections monthly meetings were recruited from IHS, the Marion County Health Department, Healthy Babies Consortium partners, and various community-based agencies. Consumers were encouraged to attend meetings with significant others, family, and/or friends. From January to October 2004, 93 mothers and seven fathers attended monthly Consumer Connection meetings, with an average attendance of 22 consumers per meeting. One of these consumers attended all 10 meetings, and another consumer attended nine of 10 meetings. The consumer who
attended all meetings has also volunteered to be a Baby First Advocate. Ten consumers delivered full-term, healthy babies this past year.

In addition to the Consumer connection meetings, consumers were given an opportunity to voice ideas, concerns, and recommendations at all full-body consortium meetings, and other consortium-sponsored events. As relationships were developed with consumers, staff experienced an increasing number of one-on-one conversations with them. These conversations occurred at meetings or through phone calls, and ensured that “the voice” of the consumer was heard. Consumers contributed to the strategic planning process by: 1) completing program evaluations at every monthly meeting that will be used to plan the future direction of the meetings; 2) evaluating speakers and determining who should be invited as speakers for future programs; 3) participating in the Association of Maternal and Child Health Programs Action Learning Lab Initiative; 4) participating in the Indiana Friendly Access focus groups to determine barriers to care; 5) participating in Healthy Start National and Regional Conferences; 6) participating in local town hall meetings; 7) attending MCH partner planning meetings; and 8) participating in an annual program survey. Consumers impacted the budget and financing through: 1) utilizing transportation and childcare services; 2) requesting program monies to accommodate consumer special events, i.e. recognition awards; 3) contributing recommendations on needed services; 4) soliciting donations from local businesses to support consumer programs, such as Baby First Advocates activities, and utilizing free media opportunities to promote consumer activities; and 5) working in IHS funded positions. Consumers were recruited as Baby First Advocates, and were encouraged to apply for positions with IHS and other consortium partners as they become available. Three consumers who attended monthly consumer meetings were hired as temporary outreach workers for the Healthy Start program and participated in the Healthy Start Spring Conference 2004. One of these has advanced to become a certified Community Health Worker. Twelve consumers participated in the Indiana Friendly Access focus groups aimed at giving consumers a voice in improving maternal and infant health services. Consortium members were encouraged to ask consumers to participate in planning processes for their organizations as well.

3. Sustainability
The IHS sustainability plan included the following strategies to pursuing diverse sources of revenue:
1) Sustain Federal Funding
   • Develop grant writing abilities in the consortium
   • Plan for Third Party Reimbursement for services
   • Improve program services/outcomes to better position program for re-funding
   • Keep legislators informed of IHS activities
   • Increase the profile of IHS and the Healthy Babies Consortium in the community
2) Other Public/Government Support
   • Develop relationship with Health and Hospital grants department; seek opportunities to pursue funding from other governmental sources
   • Submit applications for Title V ISDH grants
• Collaborate with community organizations on Fetal Alcohol Syndrome grant opportunities
• Collaborate with community organizations on mental health/STD/HIV funding opportunities
• Increase partnership with Women’s Center for Excellence in Health
3) Foundation Support
• Research foundation support opportunities
• Encourage subcontractors to pursue support for programming from foundations
4) Corporate Support
• Secure community/business resources to support the Baby First Advocates project and Diversity Conference through the consortium
• Explore potential for corporate support/donations through the consortium
5) Special Event Fund Raising
• Baby First Advocates’ local business sponsorship of activities through MHCMC
• Partners’ events

Progress was made in all five sustainability plan areas.

Sustainability was a shared responsibility of all members of the Healthy Babies Consortium. Members worked to sustain services in a variety of ways. Consortium members: 1) collaborated on projects and sought funding together, 2) encouraged consumer involvement 3) partnered to combine resources to support programming or events, 4) collaborated to eliminate duplication of services to ensure that the needs of the greatest number of clients can be met, 5) partnered to fill gaps in services created when partners lost funding, 6) implemented evidence-based interventions, 7) collaborated to build evaluation infrastructure, and, 8) promoted the use of good data sources to plan interventions and coordinate services. Through these activities, consortium members aimed to prioritize strategies, monitored client needs and barriers, and implemented effective interventions using community resources in the most efficient manner.

Consortium membership was mobilized to contact national and local legislators in support of any legislation that promoted funding for maternal and child health programs or promoted better health for our consumers. For example, information regarding Marion County’s anti-smoking ordinance, and information from the National Healthy Start Association regarding Healthy Start funding, was distributed to members who contacted legislators to show support. The consortium also worked to find ways to better utilize community resources through collaboration. Whenever possible, organizations pooled resources to conduct trainings, major conferences, or data collection activities for the benefit of all. Community organizations and businesses were encouraged to participate in consortium activities, especially those involving consumers. The Baby First Advocates program was successful in engaging local churches, beauty salons, barbershops, restaurants, and store managers to “give back” to the community by becoming advocates. The advocates participated in disparity and health education training, and then used their business resources to deliver key messages to the community. The WHS subcontractor received Wishard Foundation grant money to purchase health education materials and incentives.
Additionally, IHS staff helped secure Title V funding for the Marion County Health Department Epidemiology program to hire a .5 FTE epidemiologist to conduct Perinatal Periods of Risk (PPOR) analysis, and for a .5 FTE Maternal and Child Health Clinical Specialist to develop pre and inter conceptional protocols & messages. Both of these positions were designed to develop infrastructure to facilitate maternal and child health activities for the entire community. The Marion County Health Department also funded a FIMR specialist and the Healthy Babies Consortium Coordinator - two key positions that helped facilitate Healthy Start activities in the community, and would likely remain in the MCHD infrastructure to continue those efforts even if IHS funds were no longer available. Also, IHS administrative staff was proactive in working with the Health and Hospital grants department to search for other public or private funding opportunities to sustain the program.

Other sustainability activities directed at maximizing the grant funds were facilitated by Health and Hospital Corporation of Marion County and the Marion County Health Department, and included: Title X family planning services (through Wishard Health Services), outreach to recruit enrollees into S-Chip, Wishard Advantage (a managed care program for the uninsured), coordination with WIC and Head Start, and Midtown Mental Health Services. Midtown, a division of Wishard Health Services, provided crisis stabilization and residential and outpatient treatment services for pregnant and/or postpartum women and their children. Midtown also provided staff at Wishard Hospital’s II CARE program. II CARE provided prenatal care to pregnant women with alcohol and/or drug addiction. Midtown also trained OB/GYNs and other primary care providers about how to identify and refer women with an alcohol and/or drug addiction to the appropriate services. This collaboration supported Health and Hospital Corporation of Marion County’s long-range plan to integrate primary care and mental health services. Additionally, Midtown’s Child Mental Health Initiative, a collaborative partnership with the Substance Abuse Mental Health Services Administration, Indiana Division of Mental Health and Addiction, Marion Superior Court, and Indiana Department of Education, provided community and home based services to youths involved in the juvenile justice system. Unique to this project was not only the provision of services through a collaborative system of care model but also the “pooling” of grant monies that had been traditionally used categorically. This “pooling” of funds provided the infrastructure for comprehensive service delivery.

As the designated public health and hospital provider for the county, Health and Hospital Corporation of Marion County ensured that the allocation of grant and non-grant revenues supported a “cost conscious” integrated delivery system designed to meet the needs of pregnant women and children in Indianapolis/Marion County. The Marion County Health Department and Wishard Health Services were Medicaid providers. Individuals who did not qualify for Medicaid, S-CHIP, or other third party reimbursements were enrolled in the Wishard Advantage Program, an assimilated risk-based managed care program for uninsured residents in the county. Funding from the Health Resource Services Administration’s Community Access Program (CAP) enabled Health and Hospital Corporation of Marion County to expand the Advantage Program to all seven safety net providers in the county, which includes two FQHCs. All programs
were considered during the application and intake process to ensure that the appropriate funding source was utilized. This “pooling” of resources also ensured health care access for the entire family.

Other programs designed to compliment and enhance Indianapolis/Marion County’s perinatal delivery systems included the Beds And Britches Etc. (B.A.B.E.S.) store that provided low-income pregnant women with baby clothing, cribs, car seats, and other supplies, and referred to inter-disciplinary care coordination teams. As the WIC provider for Indianapolis/Marion County, the Marion County Health Department coordinated with the county’s Head Start provider, Family Development Services, Inc., to ensure that all children eligible for Head Start were referred, and children enrolled in the Head Start program received WIC services. Postpartum depression screening and referrals were completed by WIC nutritionists located at 13 WIC clinics, three hospitals, and one homeless shelter. WIC ranked second in the top referrals for IHS active clients, with 62% of all referrals completed. Also, IHS collaborated with WIC in supporting a statewide breast-feeding campaign. In addition to IHS, there were three community based care coordination teams serving IHS’s target perinatal population. These teams provided care coordination, outreach, and referral services. The teams were located at the Marion County Health Department, HealthNet, Inc., and Wishard Health Services. In 2003, Wishard Health Services was again awarded Title V MCH family planning grant dollars from ISDH, with a focus on providing bilingual services to a growing number of Hispanic residents in the community. Under the leadership of the Marion County Health Department, the Stamp Out Syphilis Coalition worked to eliminate syphilis by strengthening community infrastructures in neighborhoods that were most affected by syphilis. The Marion County Tobacco Control Partnership promoted tobacco-free lifestyles and advocacy to prevent tobacco use. Also, IHS actively worked with the Healthy Babies Consortium, which served a vital role in sustainability through its partnership with local hospitals, community associations, providers, and consumers. Furthermore, the Indianapolis Healthy Babies Consortium, along with the local hospitals, conducted Fetal Infant Mortality Reviews (FIMR) to identify birth outcomes and implement quality improvement efforts.

In 2004, IHS discussed Third Party Reimbursement with subcontractors and asked them to attend Third Party Reimbursement training. Only one subcontractor attended training, but did not pursue implementation. Most either determined they were not eligible or felt the cost of implementation would exceed the benefit. In most clinics, medical visits were billed for Third Party Reimbursement where eligible. However, billing systems did not flag clients by program, so revenue could not be reported back specifically for IHS clients. Reimbursement for case management services was not pursued. IHS will require subcontractors to pursue Third Party Reimbursement for Healthy Start services whenever possible in the next funding cycle. Revenue generated will be used to offset expenses of the Healthy Start activities at the subcontracting site to encourage long-term sustainability. Subcontractors will be required annually to disclose to the IHS Program Manager the amount of Third Party Reimbursement revenue generated from Healthy Start activities. In January 2005, IHS contracted with a consultant to develop a training manual for third party reimbursement procedures including personnel requirements and
estimated reimbursement amount for subcontractors. A copy of the manual will be given to each subcontractor to facilitate third party reimbursement. Subcontractor contracts for 2005-2006 were also amended to require third party reimbursement efforts or a written explanation of why this was not possible.

4. Collaboration and Coordination Linkages with Title V and Others
IHS collaborated with ISDH’s Maternal and Child Health Title V Program on projects or initiatives that focused on reducing infant mortality and eliminating perinatal health disparities identified in Section I of this report. These included Pregnancy Risk Assessment Monitoring Survey (PRAMS), Pregnancy Substance Use Prevention Program, Medicaid, Covering Kids (S-CHIP), Cultural Competency Training, Mental Health Providers, Focus Groups, AMCHP, state funding for the Action Learning Lab (ALL) training, Indianapolis Healthy Babies Consortium FIMR activities, and Indiana Access.

PRAMS
ISDH Title V staff completed the mini-PRAMS in 2002. PRAMS was a surveillance project of the Centers for Disease Control (CDC) and Prevention and State Departments of Health. The results of the PRAMS were shared with IHS and WIC in February 2003. The survey results indicated that women in Marion County were two times more likely than women in Lake County, and nine times more likely than women in St. Joseph County, to report that they didn’t have enough food to eat during their pregnancy. Only 44% of Marion County mothers were enrolled in WIC, compared to 77% of St. Joseph County mothers. Collaborative interventions by IHS and WIC to address the Marion County outcomes included joint PSA campaigns to inform consumers of services, times for receiving services, and locations. The IHS Quality Assurance Coordinator obtained WIC information for the subcontractor staff to use for client education. The database manager added data collection elements to the database to track WIC use by IHS clients. WIC has designated Tuesdays and Fridays for same day prenatal appointments.

Prenatal Substance Use Prevention Program (PSUPP)
PSUPP was a three-tier prevention program administered by ISDH with federal funds granted by the Indiana Division of Mental Health and Addiction. The three components of the program focused attention on the general public, health care providers, and pregnant substance users. The goal of Indiana PSUPP was “to prevent birth defects, low birth weight, premature births, and other problems associated with prenatal substance use.” The goals of IHS’s collaboration with PSUPP were to address a wide variety of systems issues, including implementing screening for substance abuse, and increasing referrals for assessment and follow-up.

S-CHIP/Medicaid
Health and Hospital Corporation of Marion County was the coordinating agency for the Central Indiana Covering Kids Coalition. Coalition members worked to identify and enroll children eligible for S-CHIP. Health and Hospital Corporation employed eligibility intake workers who provided community outreach and enrollment activities for the program. Wishard Health Services continued to host multiple community-based
enrollment sites. IHS assisted clients in getting appropriate health care coverage for themselves and for their family. A representative from Medicaid and MDwise met with IHS staff to review eligibility requirements and applications instructions for Hoosier Healthwise for children, food stamps, TANF, and health coverage, and to answer any questions staff had about the programs. The representatives also offered advice about how to advocate for clients experiencing problems with coverage. MDwise was the managed care organization created to provide Medicaid managed care and CHIP. The IHS Quality Assurance Coordinator was an active member of the Covering Kids Coalition.

Collaboration with Mental Health Providers in Marion County
IHS staff developed relationships with mental health providers in Marion County to offer postpartum depression screening activities for pregnant women. Meetings were held with providers at Midtown Community Mental Health Center, Westside Community Health Center, and Methodist Hospital (HealthNet, Inc.) to discuss quality of care and implement referral systems for IHS clients. IHS staff continued to monitor access to mental health services.

Focus Groups
In an attempt to determine why African American women in Indiana often did not enter prenatal care early or continue in care, an asset-based approach was utilized in focus groups to capitalize on the positive aspects of culture, communities, and neighborhoods to identify new ways to meet the needs of families, rather than the needs of providers/health systems. Focus groups also attempted to uncover the unknown effects of racism and culture on access to prenatal care and perinatal outcomes, and to develop effective strategies to reduce race-based perinatal disparities at the state level. Focus groups were conducted with the support of ISDH’s Maternal and Child Health Title V Program, Indiana Perinatal Network, and Indiana Access. IHS was a vital partner in the recruitment of participants and in providing transportation and incentives for the focus group participants.

Association of Maternal & Child Health Programs Action Learning Lab Initiative (ALL)
The IHS Project Director was a member of the Indiana ALL initiative on perinatal disparities. The ALL objective was to assist state public health leaders with sharing and developing effective strategies to reduce poor birth outcomes among racial and ethnic minorities. The first part of the lab was held in Atlanta, Georgia, January 7 and 8, 2004. Other participants on the state’s team include representatives from ISDH’s Title V Program, Office of Minority Health, Lake County Maternal and Child Health Network, Healthwise Midwest, and an IHS community participant to represent consumers.

Consortium FIMR
In addition to collaborating on all Healthy Babies Consortium activities, IHS collaborated with the Marion County Health Department FIMR specialist. The Marion County Health Department hired a FIMR Specialist, also a nurse, in 2002 to begin conducting hospital-based FIMR abstractions. During 2003, the FIMR nurse educated the consortium members about the objectives and purposes of FIMR. Title V representatives regularly
attended consortium meetings and encouraged Marion County hospitals to sustain FIMR activities. Title V strongly supported consortium efforts to conduct hospital-based FIMR studies to promote on-site inter-disciplinary professional teams reviewing the cases of fetal and infant deaths. FIMR activities in 2004 included chart abstractions, recruitment of the chart review team, development of an informational brochure, and maternal interview letter. All area hospitals were participating in FIMR by 2004.

Friendly Access Program Addressing Gaps in Access to Care and Service Quality
Indianapolis was a national pilot site for the Maternal and Child Health Friendly Access program, recently renamed Indiana Access. The project, coordinated with the Lawton Chiles Center for Healthy Mothers and Babies, was intended to improve the health and well-being of patients by creating a health and human service care and support system that evolves from the needs of the people it serves. The program involved training conducted by the Disney Institute that focuses on leadership and quality services. The Friendly Access program was guided by the following Healthy People 2010 objectives for the nation:

- Objective 10—Access to Quality Health Services (preventive care & primary care).
- Objective 12—Maternal Infant and Child Health (entire area with specific emphasis on access and prenatal care and the quality of prenatal care).

Collaborative values that guided Indiana Access and IHS interventions included caring for pregnant women with dignity, respect, compassion, courtesy, competency, and efficiency. In 2003, Indiana Access conducted quality of care surveys. Results were shared with the consortium in 2004. In April 2005, IHS began collaboration with Indiana Access to implement an unintended pregnancy survey to be implemented in the summer of 2005.

Collaboration continued with all of the projects mentioned above throughout the funding cycle. Additionally, the office of Medicaid Policy and Planning, Managed Care Organizations, and ISDH Maternal and Child Health Program has begun collaboration to apply an existing chronic disease case management model to improve outcomes and eliminate disparities. This service intervention for pregnant women will be implemented in GIS identified areas of poor pregnancy outcomes and high disparity. IHS has also participated in the ISDH Title V Maternal and Child Health Block Grant 5-year needs assessment conducted in 2004. The strengthening of relationships with service providers, hospitals and health centers, Indiana University, the faith-based community, and minority and community-based organizations was ongoing over the funding cycle through activities with consortium partners. These activities focused on the LHSAP as well as collectively addressing maternal and infant health needs in our community. Through the consortium, IHS collaborated with local health agencies, such as the March of Dimes, Indiana Perinatal Network, Indiana Genetics Advisory Council, and local hospital committees, that provided dynamic opportunities for improving the well-being of mothers and infants in Marion County. Healthy Babies and IHS staff participated on local boards and committees that positively impacted maternal and infant health status and birth outcomes. IHS lessons learned were disseminated to all service providers working with IHS clients. IHS also disseminated project outcome information through
the Indianapolis Healthy Babies Consortium, which falls under the umbrella of the Marion County Health Department, and includes consumers as well as public and private maternal and child health service providers in Marion County.

IHS took a leadership role in impacting systems changes in the Marion County perinatal health care community in several areas. This included bringing consumers to the table with state and local Title V agencies and other service providers. Also, IHS was instrumental in focusing the community on issues of disparity. In conjunction with other Action Learning Lab partners, IHS sponsored a conference held in Indianapolis on October 1, 2004, to address disparities in perinatal health care. Providers and consumers attended the conference, which included presentations from nationally known speakers. IHS utilized MCHB technical assistance opportunities to bring domestic abuse training to the entire community, resulting in a workgroup responsible for developing a community-wide perinatal domestic abuse plan. One component of the plan included dissemination of a screening protocol to be followed by all major social and health care systems. IHS also collaborated with other MCHD departments to share training resources, health education materials, and staff expertise.

III. PROJECT MANAGEMENT AND GOVERNANCE

A. Structure of Project Management
The Grantee, Health and Hospital Corporation of Marion County (HHC), is a municipal corporation that operates two service divisions: Wishard Health Services (WHS) and the Marion County Health Department (MCHD). HHC is governed by a seven-member board of trustees appointed by the mayor of Indianapolis, the City-County Council, and the county commissioners. HHC is mandated by the Indiana General Assembly to provide medical services to those that fall ill or sick within county borders.

*Wishard Health Services* (WHS) serves as the public hospital for indigent care in Marion County. It is comprised of Wishard Memorial Hospital (a general acute care facility with 302-staffed beds), seven community health centers, Midtown Community Mental Health Center, Regenstrief Health Center (which provides specialty care), a Level I Trauma Center, Ambulance Services, and the Richard M. Fairbanks Burn Center. It also includes Lockefield Village, a 202 - bed long-term care facility that provides traditional long-term care, medically complex services, an acute rehabilitation unit, and a multi-level Alzheimer’s unit. WHS is fully accredited by the Joint Commission for the Accreditation of Healthcare Organizations. At the end of 2003, the Hospital had 302 staffed inpatient beds, which included 260 adult beds and 42 pediatric, newborn and special care nursery beds. Of the total, Midtown Community Mental Health Center had 30 inpatient beds, and the Richard M. Fairbanks Burn Center at Wishard had 11 beds. In 2003, Wishard Memorial Hospital provided 85,085 patient days of care. The Hospital is located on the Indiana University-Purdue University, Indianapolis, campus along with the Indiana University School of Medicine and serves as a major teaching hospital for the state of Indiana. The Hospital also serves as a site for prestigious research institutes such as the Krannert Institute of Cardiology and the Regenstrief Institute.
Marion County Health Department (MCHD), HHC’s Public Health Division, operates two service bureaus: the Bureau of Population Health and the Bureau of the Environmental Health. These two bureaus provide diagnostic health programs, health education, immunization, community-based care and outreach services, an epidemiology program, environmental health regulations, and code enforcement. Additionally, MCHD continues to develop policies and programs to support both individual and community health.

IHS operated under the administrative and financial policies of HHC. HHC’s Public Health Division, MCHD, had all fiduciary, compliance, and contractual responsibilities related to the grant. HHC administration provided operational direction and support. As a recipient of federal, state, and county financial program assistance, HHC ensured that internal controls were in place to guarantee compliance with applicable laws and regulations related to those programs. This internal control structure was subject to periodic evaluation by corporate management. Furthermore, HHC was required to undergo an annual audit to conform to the provisions of the Single Audit Act of 1996, and U.S. OMB Revised Circular A-133, Audits of State and Local Governments and Non-Profit Organizations.

MCHD had extensive experience and capability to coordinate, implement, and monitor Indianapolis Healthy Start. MCHD had proven leadership in community collaboration, and contractual experience with community-based organizations that could implement programs at the grassroots level to reach those clients who were most in need. Collaborative activities included several public health partnerships and consortia such as: the Building Healthier Neighborhoods Partnership, Covering Kids – CHIP, Indianapolis Healthy Babies, Faith and Families, Stamp Out Syphilis, Indiana University-Purdue University School of Public Health, Indiana University Department of Adolescent Medicine, Minority Health Coalition, Reaching Parents in Crisis Taskforce, and many others.

MCHD provided all of the support necessary for IHS administrators to manage the project. The project management approach was a participatory model characterized by activities that emphasized the team approach to meeting objectives, including continuous input from consumers, and intentionally developing collaborative relationships. Table 5 describes the MCHD administrative and organizational structure within which the project functions.

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<thead>
<tr>
<th>Staff</th>
<th>Title</th>
<th>Responsibilities</th>
<th>Reports to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matthew L. Gutwein</td>
<td>President &amp; Chief Executive Officer, HHC of Marion County, Indiana</td>
<td>Responsible for all operations of HHC, which includes MCHD and Wishard Health Services.</td>
<td>HHC Board of Trustees</td>
</tr>
<tr>
<td>Virginia A. Caine, MD</td>
<td>Director, MCHD – Co-Principal Investigator</td>
<td>Responsible for all operations of MCHD.</td>
<td>HHC Board of Trustees</td>
</tr>
<tr>
<td>Haywood Brown, MD</td>
<td>Chair OB/GYN, Duke University, Co-Principal Investigator</td>
<td>Responsible for overall program evaluation.</td>
<td>Dean of the Medical School</td>
</tr>
<tr>
<td>Joan Trendell, RD, CD, MA</td>
<td>Bureau Chief, Population Health,</td>
<td>Responsible for oversight of all Maternal and Child Health activities.</td>
<td>Director, MCHD</td>
</tr>
</tbody>
</table>
### Staff, Title, Responsibilities, Reports to

<table>
<thead>
<tr>
<th>Staff</th>
<th>Title</th>
<th>Responsibilities</th>
<th>Reports to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yvonne Beasley, RN/MN</td>
<td>Director of Maternal and Child Health Department</td>
<td>Responsible for program oversight and collaboration with Title V.</td>
<td>Bureau Chief of Population Health, MCHD</td>
</tr>
<tr>
<td>Lola King, MS</td>
<td>Consortium Coordinator</td>
<td>Responsible for consortium support and communication with partners and IHS.</td>
<td>Director of MCH,MCHD, Project Director</td>
</tr>
<tr>
<td>Teri Conard, RN</td>
<td>FIMR Coordinator</td>
<td>Responsible for FIMR reviews, maternal interviews, and coordinates Case Review Team meetings.</td>
<td>Director of MCH,MCHD, Project Director</td>
</tr>
<tr>
<td>Shelley Vaughn, MS</td>
<td>Indianapolis Healthy Start Project Manager</td>
<td>Responsible for overall management of the project. Communicates directly with all staff and consortium partners as needed.</td>
<td>Director of MCH,MCHD, Project Director</td>
</tr>
<tr>
<td>Sherry Matemachani, BS</td>
<td>Outreach &amp; Health Education Coordinator</td>
<td>Responsible for implementing quality assurance controls &amp; providing direct technical support to subcontractors.</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Julie Sautter, MSW</td>
<td>Data Manager</td>
<td>Responsible for the data/evaluation operations, compiles/writes data reports for grant requirements.</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Julia Magsby</td>
<td>Community Outreach Worker</td>
<td>Responsible for outreach and home visitation services to IHS clients.</td>
<td>Project Manager</td>
</tr>
<tr>
<td>LaKeisha Zackery</td>
<td>Office Coordinator</td>
<td>Responsible for secretarial support for the Healthy Start program.</td>
<td>Project Director</td>
</tr>
</tbody>
</table>

In addition to the MCHD positions funded by IHS, HHC annually awarded IHS funds to community organizations for positions based on clearly defined scopes of work and organizational capacity to achieve program objectives and outcomes. The contracts and the scopes of work detailed the specific program services that each organization provided. The scopes of work included: a) enrollment goals, b) type of program, c) program location, and d) other responsibilities related to operational requirements. The subcontractor organizations providing services included: ACTION Center, Citizens Health Center, HealthNet, Inc., Minority Health Coalition of Marion County, Indiana University MOM Project, St. Francis Hospital and Health Services, St. Vincent Hospitals and Health Services, and Wishard Health Services. Legacy House remained a subcontractor providing domestic violence case management through 2004 after which they declined to renew the contract citing incompatible IHS scope of work with Legacy House mission.

### B. Resources Essential for Fiscal and Program Management

Health and Hospital Corporation of Marion County annually awarded IHS funds to community organizations to provide direct services. Priority in awarding subcontracts was given to organizations that served the target population. HHC had several layers of monitoring and support for subcontractors that involved key program administrators and fiscal and evaluation staff. The IHS Program Manager was responsible for monitoring each subcontractor to ensure that the scopes of work were followed. Program outcomes were reviewed at monthly evaluation meetings, and evaluators made recommendations for improvement. The Program Manager, Coordinators, and the Data Manager met to discuss implications for the program and make necessary changes. Subcontractors received technical
assistance from key administrative staff to implement recommendations based on need. Additionally, HHC assigned a Grants Coordinator to monitor contractual and fiscal matters. The Grants Coordinator tracked subcontractor invoices and provided technical assistance as needed to both the subcontractors and the Program Manager. Finally, HHC conducted annual internal reviews of each subcontractor to ensure that contractual obligations were met. Monitoring activities involved reviewing reports submitted by the subcontractor, performing site visits to subcontractors to review financial and programmatic records and observe operations, arranging for agreed-upon procedures for certain aspects of subcontractors' activities, such as eligibility determinations, reviewing the subcontractors' single audit or program-specific audit results, and evaluating audit findings and the subcontractors' corrective action plan. The Program Manager and the grants department received reports from the internal auditors so all parties were made aware of any deficiencies.

C. Changes in Management and Governance

There were no changes in the administration and management functions since the original grant. However, there were changes in the personnel. The Health and Hospital Corporation had a new president, Matthew L. Gutwein, who began December 1, 2002. The IHS Project Director, Bobbie Brown, Director of Maternal and Child Health resigned her position in October, 2002, because her husband accepted the Chair of the OB/GYN Department at Duke University in North Carolina. The IHS Project Manager, Catherine Ryan, resigned her position in October 2002 to accept a position as an Associate in Research at Duke University. Yvonne Beasley was hired as Project Director in January 2003. The federal Healthy Start office approved Ms. Beasley’s credentials prior to her being hired. The position of Project Manager was vacant from October 2002 until April 14, 2003 until the current Program Manager was hired. Ms. Beasley served as interim Project Manager from January through April 2003. Prior to the hiring of Ms. Beasley, the responsibilities of the Project Director and Project Manager were coordinated by Joan Trendell, MCHD Bureau Chief of Population Health. Her administrative leadership ensured a smooth transition until the new Project Director began. The other personnel changes included the Data Manager position and the Quality Assurance Coordinator positions. There have been three Quality Assurance Coordinators during this grant cycle, and two Data Managers. Turnover in these positions was due to new job opportunities, and returning to post-graduate education. The management team has remained stable since 2003.

D. Appropriate Distribution of Funds

As program components have grown over time, the distribution of program funds has shifted slightly to accommodate various activities. However, the subcontracting organizations have remained stable throughout the funding period and have provided the same core services as originally budgeted. Therefore, changes in the allocation of dollars in the budget have been due to normal program evolution such as including raises for personnel, more dollars for consumer activities as consumer involvement has grown, and staff development training as additional/new staff was hired.

E. Additional (Non-Healthy Start) Resources

In addition to the grant-funded personnel, HHC funded key positions that contributed services to IHS. These positions include the IHS Project Director, the Indianapolis Healthy
Babies Consortium (IHBC) Coordinator, and FIMR Specialist. The Project Director, also the MCHD Maternal and Child Health Director, promoted lessons learned from the Healthy Start project and encouraged consumers and other agencies to continue working to eliminate disparities through involvement in the consortium. The IHBC, facilitated by the Coordinator, has been instrumental in the dissemination of information to the community and the development of health education resources. IHS also partnered with the HHC epidemiology department and the Indiana State Department of Health (ISDH) to build an MCH evaluation infrastructure that will be sustainable. The FIMR position, also funded by MCHD, worked in conjunction with the evaluation infrastructure to continue to support the community with data and analysis. All of these resources have significantly extended the reach of the IHS program.

HHC was also the national pilot site for the Maternal and Child Health Friendly Access program. This program, coordinated with the Lawton Chiles Center for Healthy Mothers and Babies, was intended to improve the health and well-being of patients by creating a health and human service care and support system that evolves from the needs of the people it served. The program provides training conducted by the Disney Institute that focused on leadership and quality services training. HHC sent over 70 employees to this training. HHC is currently in the process of implementing the training across Wishard, IUMG, and MCHD systems.

F. Cultural Competency of Contractors and Project Staff
Project staff—including program participants employed to conduct outreach and home visitation—was diverse in its cultural, ethnic, and professional backgrounds, and representative of the diverse backgrounds of IHS clients. Bilingual staff was hired whenever possible and translators were used as needed. To ensure vigilance with regard to cultural sensitivity, IHS staff were required to participate annually in workshops, trainings, and other activities to facilitate their cultural competency development. It was expected that IHS staff had the capacity, skills, and knowledge to respond to the unique needs of individuals, families, and communities of various cultural backgrounds. To accomplish this, IHS staff completed a two-day Cultural Competency Workshop series held by the Indiana State Department of Health (ISDH) that had to be completed within three months of employment. Workshop objectives were to: 1) develop an individual Cultural Competency Action Plan with specific personal objectives; 2) demonstrate a working knowledge of the application of Cultural Competency principles to programs and practices; 3) understand the concept of culture and how it affects health beliefs, practices, and outcomes; 4) identify different racial, ethnic, and cultural groups in Indiana, and describe some of the beliefs and practices relevant to public health; and 5) define cultural competence and explain how it ties into program mission.

The following year, staff attended ISDH’s advanced one-day Cultural Competency Workshop. The advanced workshop built upon the skills acquired in the first workshop. The advanced cultural competency workshop objectives were: 1) learn the guidelines for examining the practices and behaviors of one’s organization; 2) learn the guidelines and practice examining one’s own values and behaviors using the principles of cultural proficiency; 3) utilize the cultural proficiency continuum as a tool for categorizing a range of
responses to difference; and 4) develop an action plan with specific steps to continue the journey toward cultural proficiency. After completing the ISDH Cultural Competency series, IHS staff were asked to implement an organizational or personal action plan and participate in a cultural activity each year of employment with IHS. A cultural competence activity could include attending a cultural festival, participating in a cultural ceremony, visiting a cultural museum, or any other activity that provided a better understanding of the values, attitudes, and beliefs of individuals, families, and communities.

The benefit of attention to cultural sensitivity was realized in high client satisfaction scores. Protocol required participants of all outreach and health education classes, and all case management clients, to receive a confidential client satisfaction survey. Case management clients had at least three opportunities to complete the survey: during prenatal care, during interconceptional care, and at termination of services. Survey results demonstrated that the overall satisfaction rate of services was 97.6% in 2003, and 99% in 2004. Of those completing the survey, 99% felt they were treated with respect, instructions/explanations were understandable, site staff was friendly, care was satisfactory, and the information was helpful. Ninety-seven percent in 2003 and 96% in 2004 felt they received a first visit appointment in a timely manner, and 85% in 2003 and 90% in 2004 reported appropriate wait times for their visits.

HHC was also the national pilot site for the Maternal and Child Health Friendly Access program. This program, coordinated with the Lawton Chiles Center for Healthy Mothers and Babies, was intended to improve the health and well-being of patients by creating a health and human service care and support system that evolves from the needs of the people it served. The program provided training conducted by the Disney Institute that focused on leadership and quality services training. HHC has sent over 70 employees to this training, including the IHS Program Director.

IV. PROJECT ACCOMPLISHMENTS
The IHS program created an ambitious implementation plan that covered 21 project objectives on case management services (13 objectives), outreach services (2 objectives), health education (3 objectives), a consortium (2 objectives), and a local health action plan (1 objective). The majority (5) of the objectives successfully met were case management objectives. Through IHS case management services, the percentage of IHS participants born with very low birth weight (<1500g) was 1% (objective was 2%), the percentage of IHS participants born with low birth weight (<2500g) was 5% (objective was 12%), the percentage of IHS participants born premature (<37 weeks) was 7% (objective was 13.5%), the percentage of IHS participants who breastfeed was 56% (objective was 38%), and the percentage of IHS participants who completed a satisfaction survey was 67% (objective was 60%). The program met both of its objectives for outreach. IHS subcontractors provided over 25,000 outreach encounters (objective was 2300) and ensured that 100% of affiliated program sites provided cultural competency training (objective as 100%). IHS subcontractors also provided more health education consultations than expected (4,588 encounters with an objective of 3,165). Lastly, the program exceeded a consortium objective to provide training. Almost all (95%) of consortium members received training about the work of the consortium, with an objective of 80%.
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

<table>
<thead>
<tr>
<th>Project Period Objective</th>
<th>Strategy and Activities</th>
<th>Accomplishments</th>
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<td>By 06/01/05, 84% of 2 year olds will receive the full schedule of age-appropriate immunizations. (Baseline: 79% (numerator and denominator are not available from CDC source) of 2 year olds received the full schedule of age appropriate immunizations. Source: CDC 1996-1998 calculated immunization rates)</td>
<td>Strategy: Aggressive outreach and follow-up with pregnant and parenting women.</td>
<td>As of December 31, 2004, 15 out of 33 (45%) two years old received the full schedule of age appropriate immunizations.</td>
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<td>Activities</td>
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<td></td>
<td>1a. Outreach activities to reach mothers and babies</td>
<td>Ongoing</td>
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<td>2a. Provide accurate information on immunizations</td>
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<td>3b. Track scheduled appointments and provide follow-up for missed appointments (January 2002 – December 2004)</td>
<td>Ongoing</td>
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<td>4a. Work with partnering organizations to focus on perinatal system improvements (January 2002 – December 2004)</td>
<td>Ongoing</td>
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## Table 6. Final Report/Implementation Plan

**Grantee:** Indianapolis Healthy Start (IHS)  
**Intervention:** Case Management

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<tr>
<th>Project Period Objective</th>
<th>Strategy and Activities</th>
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<tr>
<td>By 06/01/05, 82% of pregnant participants will initiate prenatal care in the first trimester. (Baseline: 76% (158) of 209 had prenatal care in the first trimester. Source: Marion County Health Department, 1999 FIMR Report)</td>
<td>Aggressive case findings for current level of prenatal care in the first trimester. Provide outreach and enrollment into the program for pregnant teens. Link teens to health services. Activities 1a. Early Start Nurse to provide triage care with initial contact from client and obtain a timely appointment with a primary care provider (January 2002 – December 2004) 1b. Early Start Nurse will link to care coordination and WIC services (January 2002 – December 2004) 1c. Early Start Nurse tracks and follow-up on appointments (January 2002 – December 2004) 2a. Outreach is targeted to African American and Hispanic populations with health promotions that are consistent with a person’s cultural framework (January 2002 – December 2004) 2b. Coordinate efforts to access health services, schedule appointments, and provided follow-up though case management (January 2002 – December 2004) 2c. Involve the father when possible to do so (January 2002 – December 2004)</td>
<td>As of December 31, 2004, 152 out of 208 (73%) pregnant case management clients initiated prenatal care in the first trimester of pregnancy. Ongoing</td>
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Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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| By 06/01/05, 2% of very low birth weight infants born to women who received Healthy Start prenatal services. (Baseline: 3.1% (137) of 3,716 live births to black women are very low birth weight infants. Source: Marion County Health Department Vital Statistics 1996-1998 average) | Strategy
Aggressive case management for pregnant women at risk to have low birth weight, very low birth weight, preterm or small for gestational age infants. Activities
4a. Provide a variety of educational formats regarding:
   How to care for a baby;
   A Nutritious diet for mother and baby;
   Accurate information on the harmful effects of substance abuse, tobacco, and alcohol; and
   Accurate information on breastfeeding. (January 2002 – December 2004) | As of December 31, 2004, 2 out of 208 (1%) very low birth weight infants born to women who received Healthy Start prenatal services. Ongoing Ongoing Ongoing Ongoing |
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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| By 06/01/05, 13.5% of preterm infants born to women who received Healthy Start prenatal services. (Baseline: 15.2% (554) of 3,646 of live births to black women were preterm infants. Source: 1996-1998 average from Indiana State Department of Health Natality Reports) | Strategy
Aggressive case management for pregnant women at risk to have low birth weight, very low birth weight, preterm or small for gestational age infants. Activities
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Consortium

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<th>Project Period Objective</th>
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| By 06/01/05, 25% of consumers will participate in the work activities of the Consortium. (Baseline: 10% (20) of 209 consumers participated in the work activities of the Consortium. Source: Marion County Health Department, 1999 FIMR Report) | Strategy
To work collaboratively with the Healthy Babies Consortium to impact medical care and population-based interventions for women’s health.
Activities
1a. Consortium will host quarterly meetings (January, April, July, October)

Ongoing
Ongoing
Ongoing
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Consortium

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Grantee: Indianapolis Healthy Start (IHS)  
Intervention: Case Management

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| By 6/01/05, 85% of referrals among case managed Healthy Start participants will be completed. (Baseline: 70% (1,238) of 1,768 referrals among case managed participants are completed. Source: Marion County Health Department Care Coordination, 2001) | Strategy  
Aggressive case management follow-up for pregnant women and their infants enrolled in Healthy Start.  
Activities  
1a. Provide referrals to coordinate social, psychological, financial, or other needs of pregnant women, postpartum women and their infants with their medical care (January 2002 – December 2004)  
2a. Referral completion is followed-up with multiple activities; telephone, home visits, appointments with the clients, weekly, bi-weekly, or monthly depending on client’s medical and other needs (January 2002 – December 2004)  
2b. Referral and follow-up consists of: OB medical care, child birth education, employment/education, food/clothes pantry, HIV Care Coordination, Hoosier Healthwise (Medicaid), legal services, medical health, smoking (January 2002 – December 2004)  
2c. Referral completion includes follow-up communication with medical provider and other sources (January 2002 – December 2004)  
2d. Referral follow-up on the mother and infant to two years old includes: Children with Special Health Care Needs, immunizations, EPSDT and use of the Bright Futures curriculum (January 2002 – December 2004) | As of December 31, 2004, 259 out of 310 (84%) referrals among case managed Healthy Start participants have been completed. |
|                           |                         | Ongoing          |
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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<td>By 06/01/05, 88% of referrals among case managed Healthy Start infants with Special Health Care Needs will be completed. (Baseline: 76% (255) of 298 referrals are completed for Children with Special Health Care Needs. Source: Indiana State Department of Health/Marion County data CY 2001)</td>
<td>Strategy: Aggressive case management and communication with medical providers to assure that Healthy Start infants born at risk receive mandated and other screenings. Activities 1a. Provide follow-up and coordination with medical providers and family for infants receiving meconium testing for possible drug affliction in newborns (January – December 2004) 1b. If a hearing impairment is detected, provide referral and coordination with medical providers and family regarding the infant’s physiologic hearing screening examination to CHSCN (January – December 2004) 1c. If sickle cell is detected, provide follow-up and coordination with medical providers and family regarding the infant’s screening and coordination with CHSCN (January – December 2004) 2a. All case managers participate in a review of CHSCN program (March 2003 – June 2004)</td>
<td>As of December 31, 2004, 36 out of 42 (86%) referrals has been made to Children with Special Health Care Needs. Ongoing Ongoing Ongoing Completed</td>
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Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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<td>By 06/01/05, 73% of participants will receive interconceptional services. (Baseline: 65% (357) of 545 OB patients attended a postpartum visit. Source: St. Vincent Primary Care Center)</td>
<td>Strategy To provide interconceptional care services along the continuum of perinatal care, from preconception through the postpartum period. Activities Risk assess all postpartum women on social, medical, dental, and psychological conditions. Health behaviors, environmental and systematic barriers are also assessed using the risk assessment tool (January 2002 – December 2004) Provide health promotions that include one on one counseling on family planning, pregnancy spacing, contraception, safe sex, child care, parenting skills and infant development to target individualized patient needs (January 2002 – December 2004) Provide interconceptional care through Care Coordination and Healthy Start sites to follow mothers and infants for medical, social and mental health services (January 2002 – December 2004)</td>
<td>As of December 31, 2004, 215 out of 368 (58%) participants received interconceptional care services. Ongoing</td>
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Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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| By 06/01/05, 100% of women enrolled in Healthy Start will be screened for postpartum depression. (Baseline: 21% (426) of 19,947 postpartum WIC participants are screened for depression. Source: Marion County Health Department WIC Program, 2000) | Strategy
To provide routine screening and skilled assessment for depression for postpartum women. | As of December 31, 2004, 200 out of 208 (96%) postpartum women enrolled in Healthy Start were screened for postpartum depression. Ongoing |
| | Activities
1a. All Healthy Start case management sites will provide postpartum depression screening and referral using the Edinburgh Scale (October 2002 – December 2004) 2a. Increase the number of postpartum women who receive depression screening at WIC sites (October 2002 – December 2004) 3a. Crisis interventions are provided for patients who are clinically evaluated to cause immediate harm to themselves or others. These patients get services at: Midtown Mental Health Center, Gallahue Mental Health Center, and Tri-County Mental Health Center (October 2002 – December 2004) 4a. Non-crisis intervention referrals and case management are provided for patients identified as having depressive symptoms that do not indicate suicidality (October 2002 – December 2004) | Ongoing |

Ongoing
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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| By 06/01/05, 100% of pregnant participants assessed by the high-risk assessment tool. (Baseline: 12% (25) of 209 women had documented risk assessment. (Source: Marion County Health Department 1999 FIMR Report) | Strategy
To identify women at high risk for adverse birth outcomes and standardized comparable data analysis. Activities
1a. Standardize the risk assessment tool (Meetings held January - March 2002)  
1c. Risk assessment of each client will measure the woman’s attitude towards her pregnancy, psychological issues, maternal and medical history (January 2002 – December 2004)  
2a. Link pregnant women to care coordination and other appropriate services (January 2002 – December 2004) | As of December 31, 2004, 343 out of 369 (93%) pregnant participants were screened by a high-risk assessment tool. Completed  
Ongoing  
Ongoing |
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)  
Intervention: Case Management

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| By 06/01/05, 38% of mothers will breastfeed their babies in the early postpartum period. (Baseline: 35% (71) of 209 of mothers who breastfed their babies. (Source: Marion County Health Department 1999 FIMR Report) | Strategy  
To increase the number of women breastfeeding at hospital discharge and at 4-6 weeks postpartum.  
Activities  
1a. Place special emphasis on breastfeeding education during pregnancy, at hospital discharge, and at 48-hour home visit by the public health nurse (January 2002 – December 2004)  
2a. Track the number of mother’s breastfeeding at 4-6 weeks postpartum (January 2002 – December 2004)  
Breastfeeding education will include the benefits of breastfeeding: Lower risk of baby having food allergies, colic and asthma, helps to develop baby’s brain and reduces the risk of sudden infant death (January 2002 – December 2004) | As of December 31, 2004, 116 out of 208 (56%) mothers’ breastfed their babies in the early postpartum period.  
Ongoing  
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Ongoing |
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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<td>Objective</td>
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| By 06/01/05,  | Strategy
| 90% of infants will receive the full schedule of age appropriate EPSDT screenings. |
| (Baseline: 32% (11,324) of 35,386 eligible children under one year completed EPSDT screenings in Indiana. (Source: Children’s Health Under Medicaid: A National Review of Early and Periodic Screening, Diagnosis and Treatment, 1998) | Activities
| 1a. Provide accurate information on screening, immunization and well clinic check ups (January 2002 – December 2004) 
| 3a. Follow up for women who do not consistently keep appointments (January 2002 – December 2004) | ☑️ As of December 31, 2004, 0 out of 144 (0%) infants received full schedule of age appropriate EPSDT screenings.* 
| (Ongoing)       | Ongoing                 | Ongoing                              |

*Screenings were not documented in 2004.
# Table 6. Final Report/Implementation Plan

**Grantee:** Indianapolis Healthy Start (IHS)

**Intervention:** Case Management

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<tr>
<td>By 06/01/05, 60% of participants will complete a client satisfaction survey.</td>
<td>Strategy To measure client satisfaction with program.</td>
<td>As of December 31, 2004, 362 out of 538 (67%) participants completed a client satisfaction survey. Completed</td>
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**Note:** Ongoing tasks are those that continue beyond the project period.
### Table 6. Final Report/Implementation Plan

**Grantee:** Indianapolis Healthy Start (IHS)  
**Intervention:** Health Education

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<tr>
<td>By 06/01/05, 100% (3,165) of 3,165 of participants will receive health education services. (Baseline: 80% (1,960) of 2,450 Indianapolis Healthy Start Initiative projected contract services. Source: 1997-1999 ACCESS database)</td>
<td><strong>Strategy:</strong> To enable people to make voluntary decisions, modify behaviors and change social conditions in ways that are health enhancing. <strong>Activities:</strong> Launch a nutrition/WIC promotion public health campaign (January 2002 - July 2004) Promote and encourage women to adopt a healthy lifestyle before and during pregnancy (January 2002 – December 2004). Assure that pregnant women receive collective education on perinatal care, awareness of preterm labor, nutrition and exercise, folic acid supplementation, avoidance of alcohol and illicit drug use, smoking cessation program, breastfeeding/lactation support services and access to Medicaid/CHIP, enrollment in WIC, dental oral health, infant growth and development, parenting skills, and immunizations (January 2002 -December 2004).</td>
<td>🌟 As of December 31, 2004, 4,588 out of 4,588 (100%) participants received health education services. Ongoing Ongoing Ongoing</td>
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Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Health Education

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<td>By 06/01/05, 85% of all clients receiving HS funded health education in smoking cessation will self report lowered frequency or elimination of this risk behavior. (Baseline: 79.1% (11,023) of 13,917 of women report abstinence from smoking during pregnancy. Source: Indiana State Department of Health Natality Reports, 1998)</td>
<td>Strategy Aggressively lower the smoking rate of pregnant women. Activities: 1a. Launch a county wide smoking cessation health education campaign will be conducted. The campaign will include public service announcements, posters, print materials and t-shirts that are culturally appropriate for different racial and ethnic groups (April 2002). 1b. Continue to promote smoking cessation health education (January 2002 – December 2004) 2a. The curricula include a methodology that helps the client understand why they smoke, why nicotine affects them, understand the nicotine/chemical impact of smoking and tips to help clients quit smoking. The materials and curricula will be adapted from: “Why do you smoke?” intervention of the National Institute of Health (January 2002 – December 2004) 3a. Encourage pregnant women to adopt healthy behaviors and reiterate the dangers of smoking at each prenatal visit (January 2002 – December 2004)</td>
<td>As of December 31, 2004, 43 out of 61 (75%) clients showing signs of smoking self reported lowered frequency. Completed Ongoing Ongoing Ongoing</td>
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Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Case Management

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| By 06/01/05, 85% of all clients receiving HS funded health education/treatment in substance abuse will self report lowered frequency or elimination of this risk behavior. (Baseline: 75% (24) of 32 pregnant substance abusers self report lower usage upon receiving health education/treatment. Source: Midtown Mental Health Project Home. Indiana State Department of Health Report, Sept. 4, 2001) | Strategy
Aggressively lower substance abuse usage in pregnant women. Activities
1a. Identify at risk patients for substance abuse and in need for further assessment (January 2002 – December 2004)
4a. Recommended treatment services include: health care services, substance abuse treatment, survival-related services, psychosocial services, parenting and family services (January 2002 – December 2004) | As of December 31, 2004, 8 out of 23 (35%) clients showing signs of substance abuse self reported lowered frequency.

Ongoing

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Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Outreach

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| By 06/01/05, 100% (2,300) of 2,300 of participants will receive outreach services. (Baseline: 85% (1,965) of 2,300 participants receive outreach services. Source: Healthy Start contracted services) | Strategy To reach African Americans, Hispanics, and Appalachian Women. Activities 1a. To identify and enroll and retain clients (January – December 2004) 2a. To disseminate health promotions campaign information at the grass roots level (January – December 2004) 3a. Conduct 10-15 major community health fairs such as Black Expo, African Unity Festival, etc. (March 2002 – December 2004) 4a. Actively reach out to the project area with a minimum of six small group education events to recruit and retain clients (March 2002 – December 2004) 5a. Will participate in outreach training (March 2002 – December 2004) 6a. Through outreach activities provide one-on-one recruitment for pregnant women into perinatal care (April 2002 – December 2004) | ☑ As of December 31, 2004, 25,788 out of 25,788 (100%) of participants received outreach services. Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing
Table 6. Final Report/Implementation Plan

Grantee: Indianapolis Healthy Start (IHS)
Intervention: Outreach

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<td>By 06/01/05, 100% of providers in project will be trained on cultural competency (180) of 180. (Baseline: 12% of (180) providers received cultural competency training. (Source: Health and Hospital Corporation)</td>
<td>Strategy Plan, develop and implement a culturally competent training for all providers.</td>
<td> As of December 31, 2004, 10 out of 10 (100%) providers received cultural competency training.</td>
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<td>1a. Learning and understand what is “culture competency” (January 2003- May 2004)</td>
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<td>1b. Learn how culture affects values and behavior about health and health care (January 2003- May 2004)</td>
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<td>1c. Learn comparisons of health systems vs. personal cultural framework (January 2003- May 2004)</td>
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<td>2a. Increase awareness of genetic tendencies in racial or ethnic groups (January 2003- May 2004)</td>
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<td>2b. Learn how to accommodate limited English proficient clients (January 2003- May 2004)</td>
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<td>2c. Learn approaches to bridging language barriers (January 2003- May 2004)</td>
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<td>3a. Understand the role of Hispanic migration patterns (January 2003- May 2004)</td>
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<td>3b. Understand the value systems and behaviors for African Americans, Hispanic, and Appalachian families. (January 2003- May 2004)</td>
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<td>By 06/01/05, 90% of local health action plans objectives will be accomplished. Baseline: 26% (17) of 60 of local health action plan objectives accomplished. (Source: Marion County Health Department, Healthy Babies Consortium Current Progress, 1999 FIMR)</td>
<td>Continue to engage the consortium to work on developing a countywide, integrated, comprehensive, and coordinated prenatal care system.</td>
<td>1a. Be more responsive to women’s needs both medical and social (January 2002 – December 2004) 2a. Assure providers assess a woman’s prenatal risk, maternal history, various social and medical needs (January 2002 – December 2004) 3a. Be creative in our efforts to educate women (January 2002 – December 2004) 4a. Provide opportunity for women and their partners to be receptive to health related behavioral changes (January 2002 – December 2004) 5a. Encourage providers to focus on improving prenatal care service (January 2002 – December 2004) 6a. Provide coverage/services for lactation support services (January 2002 – December 2004) 7a. Activities are directed under eight categories • Recommendations for pregnant women and their partners • Recommendations for prenatal care providers • Recommendations for Healthy Babies Consortium and MCHD • Recommendations on substance abuse • Recommendation on data issues • Recommendations for hospitals • Recommendations for the State of Indiana (January 2002 – December 2004)</td>
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V. PROJECT IMPACT
A. Systems of Care

IHS employed two approaches to promoting maternal and infant health and social support services in the project area and community: 1) by collaborating with subcontracting systems of care to implementation the Healthy Start core services, and 2) by participating in collaborative projects with community partners. Both approaches required IHS staff to gain an understanding of the mission and barriers that each collaborating partner brought to the partnership. It also required staff to articulate the Healthy Start mission demonstrating the common objectives that could be strengthened through collaboration. System integration was accomplished by the use of memorandum of agreements, contracts, strategic plans, and establishing core curricula for each core service area.

During contract year ’04 IHS, Marion County Minority Health Coalition, and Indiana Perinatal Network signed a Memorandum of Understanding to collaborate to implement the Baby First Advocate Project. The implementation of this project has enabled partnering organizations to further expand their service delivery to disadvantaged and underserved populations living in high-risk zip code areas. See section 3, Project Management and Governance for details of contracts with subcontractors. IHS’s impact on the comprehensiveness of services has been accomplished through the IHBC and the implementation of the local health system action plan (LHSAP). The LHSAP, locally referred to as the Indianapolis Healthy Babies Consortium Strategic Plan, was designed to ensure that quality services were provided to the target population, and to develop an integrated service delivery system in Marion County. Through the LHSAP, IHS and consortium partners, including consumers, prenatal care providers, hospital systems, the Marion County Health Department, community-based organizations, health insurance organizations, and the State of Indiana, coordinated and improved services for pregnant women, their partners, and the community. IHS staff served on community organizations’ committees, participated in strategic planning sessions, pooled resources to co-sponsor programs and public service announcements, and maintained frequent interactions with partners through the IHBC. IHS staff Committee Membership(s):

- **Project Director** - Member, Indiana Perinatal Network (IPN) Advisory Board; Member, Indiana Access Operations Committee; The approaches utilized to enhance collaboration are: Member, Indiana (Association of Maternal Child Health Programs-AMCHP) Action Learning Lab Team.
- **Project Manager**, Member, Indiana Genetics Advisory Committee; Healthy Families Advisory Board; Member, Perinatal Periods of Risk (PPOR) Team; Member, Baby First Advocates.
- **Quality Assurance Coordinator**: Member IPN Baby First Advisory Board; March of Dimes Program Committee; Minority Health Coalition of Marion County; Folic Acid Council; Covering Kids and Families Coalition; Member, Baby First Advocates.
- **Data Manager**: Indiana Access Evaluation Committee; Commission on Child Abuse and Neglect; Prevent Child Abuse, Indiana Marion County Council; Leader, PPOR Team; Member, Baby First Advocates.

IHS developed key relationships with these organizations and recruited consumers to collaborate with these organizations, especially on committee projects. These organizations included members from health services, social services, and the
community. Community leaders regularly participated in the Baby First Advocates program. Advocates were ministers, business owners, parents, and grandparents. Others worked in health care or social services.

IHS promoted the integration of services in several areas. The IHS Health Educator worked with the Lactation Consultant at the public hospital and seven outlying clinics to acquire hospital grade breast pumps to assist with making the facilities breastfeeding friendly for clients and staff. Structured change was made to the IHS Access database to integrate documentation of the Healthy Start Program Core Services and to collect data required for the Maternal and Child Health Bureau Performance Measures by subcontracted staff at two hospitals, three community health centers, two community based outreach services and the MCHD, Health Education Promotions and Training. Training of the subcontracted staff in use of the database was the responsibility of the IHS Data Manager. Quality assurance protocols have been established to monitor and evaluate compliance with meeting program expectations for service delivery of the core services and the collection of data related to the performance indicators developed for the project period. Clients at each subcontracted site completed Satisfaction Surveys. Monthly quality assurance reports were shared with subcontractors. Opportunity to change strategies to improve outcomes and client satisfaction was afforded to subcontractors through frequent contacts with the IHS Quality Assurance Coordinator and IHS Project Manager. Also, IHS participated in a two-day technical assistance (TA) site visit was provided by Rebecca Whiteman contractor for the MCHB Project on Family Violence in the summer of 2004. IHS invited over seventy local health care providers and key partners (social workers, case workers from the Marion County Office of Family and Children Service, prenatal care coordinators, Domestic Violence Counselors and Case Managers, local law enforcement staff, etc.) to attend a half-day Domestic Violence training for the community. As a result of this training and Healthy Start’s service inclusion of domestic violence risk assessment and referral, IHS staff provided leadership in establishing a Domestic Violence Workgroup as the seventh IHBC workgroup. Members of the workgroup were from Prenatal Care Coordination, Healthy Start, MCHD, and the Greater Indianapolis Domestic Violence Network. The workgroup is in the process of developing a toolkit for community organizations that want to integrate Domestic Violence Screening and referral in their assessment process. In a similar manner to the domestic violence activities, postpartum depression (PPD) awareness and promotion of screening for depression was a focus of IHS during this grant cycle. All staff received training on counseling and screening for postpartum depression. Health education classes where implemented to raise awareness in the community. IHS promoted and participated in community-wide campaigns to increase awareness of PPD among the general public, and among providers of health care and social services. IHS implemented a protocol to screen all program participants for PPD.

IHS trained all staff including subcontractors to assist clients with enrollment into the appropriate insurance program and referral to health and social services. All subcontractors worked to reduce barriers for clients accessing care or social services. A network of quality social services was identified and a referral guide was developed to assist staff with referrals. Staff documented all referrals made and completed referrals.
Reasons for incomplete referrals were documented as well. Staff worked with clients to reduce barriers to receiving services. IHS staff promoted community services to clients and community participants, shared information about IHS with other professionals, and attended meetings where partner organization services were promoted. Next appointment dates were used to monitor continuity of care. Staff received a report when a client was overdue for an appointment, and outreach activities where implemented to get the client into care. IHS utilized an immunization registry, and the Core Services Tracking System, or IHS access database, to collect client data. This reduced the need to maintain duplicate data at each site, facilitated HIPAA requirements, and allowed data to be shared at the program level while protecting confidentiality.

Consumers participated in focus groups designed to highlight their experiences with access to care, cultural sensitivity, and satisfaction with providers and the services received. (See Section 2, B4 for further information.) Results of the focus groups were shared with providers at clinics where clients received services. As a result, providers have made changes to address such issues as long wait times for appointments, long wait times in the clinic, access to bilingual staff, and provider cultural competency. Inclusion of male partners attending visits, and health education and referral for males has increased. Efforts to develop programs specifically for males are on-going. The male Baby First Advocates have promoted inclusion of men in all activities. They have approached ALL Pro Dads, an organization affiliated with the Indianapolis Colts Football team, about holding a program just for fathers in the community. Also, the Indiana Access data and PPOR data have identified suffocation as a major cause of infant death in the community. The PPOR team is currently seeking funding for a focus group of consumers to provide input on how the messages should be crafted to reduce suffocation deaths. Community members through the Baby First Advocates have also participated in a qualitative research project in conjunction with Indiana Access. They helped to develop the questions that were used for the survey, and then conducted those surveys with various demographic groups. Results are pending.

B. Impact to the Community

As a result of the efforts of IHS, the residents of Marion County have better knowledge of community resources and available services. Through outreach and presentations to residents and organizations, IHS has promoted nutrition services, clinical services, mental health services, insurance coverage, social services, and education or job training resources (see section 2, project implementation for further information). IHS has also focused the community on the disparities that exist in the community, and the actions that can be taken to reduce those disparities. Consumers have referred consumers to IHS for services. As program participants, many have received comprehensive services and health information as well. IHS has taken a leadership role in impacting systems changes in the Marion county perinatal health care community by bringing consumers to the table with service providers, local and state agencies. Through the Baby First Advocates program and the IHBC Consumer Connection meetings (see section 2, project implementation for further information), consumers have had the opportunity to impact the maternal and child health community by participating in planning, meeting with local legislators to discuss a range of health topics impacting the community, and by
participating in focus groups to voice their opinions regarding access to care. Additionally, consumers and public health professionals have had the opportunity to work together on numerous teams to accomplish project goals. (See Project Impact D. for an example.) IHS has employed several consumers as lay community outreach workers or community health workers. (See section 2.1 outreach and client retention for additional information.) Some have taken the skills they developed at IHS to other occupations.

C. Impact on the State

With support from the W.K. Kellogg Foundation and Centers for Disease Control and Prevention, the Association of Maternal and Child Health Programs (AMCHP) planned and convened a two-part Action Learning Lab (ALL) to help state MCH professionals and their local partners increase their knowledge of perinatal disparities and their contributing factors, and to assist them in creating and implementing year-long action plans for reducing these gaps at home. The project was initiated in response to research linking nearly three-fold higher rates of poor birth outcomes among black American women to social and environmental factors such as chronic stress and discrimination. The State of Indiana, applied, and was chosen to participate in the ALL. The IHS Project Director and an IHS consumer (Community Participant) were chosen to be State team members. Other team members were: Executive Director, Indiana Perinatal Network; Director, Lake County MCH Network, Health Visions Midwest; Perinatal Consultant MCH Services, Indiana State Department of Health (State ALL Team Leader); Program Coordinator, The Office of Minority Health, Indiana State Department of Health.

ALL participants discussed some key components of community-based comprehensive approaches to decreasing racial and ethnic disparities in health, as well as practical methods for MCH to help build healthy communities in which disparities can be effectively addressed. Community leadership; capacity and resiliency; family-centered care; outreach; cultural-competence; and community engagement were some of the components viewed as essential to MCH efforts to maximize the health of all families. Teams also discussed the need for public health professionals to closely examine how well they worked with the community in addition to how often they made the attempt. In other words, MCH and public health in general must engage responsibly, equitably and constructively with those served in order to see lasting improvements in the health of mothers, infants, children, and families.

The IHS Project Director had an opportunity to share the reinforcement of Healthy Start Core Services and Principles in the State ALL process through a HRSA/MCHB webcast on April 20, 2005. Indiana is fortunate to have two HRSA funded Healthy Start Projects, one in Lake County and one in Marion County (IHS). Through the ALL the impact of IHS in Marion County has been exemplified through it’s commitment to establishing and maintaining strong community partnerships through collaboration, consortium, and subcontracting of core services (see sections: Core Services and Consortium). The ALL Team identified the following as state assets: Indiana Perinatal Network, Baby First multimedia campaign, Healthy Start (Marion and Lake counties), Indiana Access,
Prenatal Care coordination & Healthy Families, March of Dimes, Lake County MCH Network, Medicare Access to Care Pilot. As the Indiana Team developed its overarching goal, objectives and action plan there was very noticeable commonalities with Healthy Start core services and principles.

Table 7. Indiana State Team Action Plan

<table>
<thead>
<tr>
<th>Community development and coalition building</th>
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<tbody>
<tr>
<td>• Work with statewide Healthy Start coalitions to establish standards and guidelines for health departments on community development and disparities.</td>
</tr>
<tr>
<td>• Develop community development track at annual statewide MCH conference</td>
</tr>
<tr>
<td>• Work with 5 county community teams (building on Healthy Start coalitions) to develop statewide disparities plan. There are 92 counties in the state, 83% of the African American population in the state is in 5 counties with high infant mortality rates-Lake(Healthy Start site); Marion (Healthy Start site); St. Joseph; Elkhart; and Allen</td>
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<tr>
<th>Data collection and dissemination</th>
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<tr>
<td>• Create county-level data books (including local mortality, natality, GIS, demographics, and systems data to increase community access to information (also make available online.</td>
</tr>
<tr>
<td>• Conduct focus groups w/200 women in 5 counties to assess perceptions of pregnancy, racism, and effects on access and quality care.</td>
</tr>
<tr>
<td>• Incorporate perinatal data and information into broader ISDH health disparities initiative and website.</td>
</tr>
<tr>
<td>• Incorporate perinatal disparities surveillance and related work into MCH/Title V needs assessment.</td>
</tr>
<tr>
<td>• Train community partners in use of data and analytic tools (e.g. PPOR, focus groups, etc.) for understanding perinatal disparities at the local level.</td>
</tr>
<tr>
<td>• Integrate ALL efforts into participation in online analytic training program to translate data to policy.</td>
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<tr>
<th>Public/professional awareness</th>
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<tr>
<td>• Develop statewide public awareness campaign on perinatal disparities w/March of Dimes as a major partner.</td>
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<tr>
<td>• Hold town hall meetings (5 counties) and press conference on disparities</td>
</tr>
<tr>
<td>• Work w/academic and community partners on statewide campaign to increase provider awareness of perinatal disparities, institutional racism and provider bias in state health care system.</td>
</tr>
<tr>
<td>• Publish article on disparities in statewide perinatal newsletter.</td>
</tr>
<tr>
<td>• Follow-up on state “Closing the Gap” efforts including town hall meetings and media campaigns.</td>
</tr>
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Table 7. Indiana State Team Action Plan (Continued)

**Care delivery and quality assurance**
- Implement early (prenatal care) entry pilot project in collaboration with Medicaid managed care and ISDH with a focus on care coordination and outreach.
- Begin work to interface and better coordinate state and regional perinatal plans.
- Secure contract with state Medicaid office to continue this work.

**State Logic Model Objective:** African American communities become empowered to be part of/have a voice in shaping/changing the health care system.

**Overarching Goals:**
1. Increase early entry, utilization, retention, and satisfaction in prenatal care, utilizing the client perspective to make system changes that are responsive to community concerns.
2. To reduce disparities in perinatal outcomes.

Table 8. IHS Impact on the implementation of the ALL Action Plan (inclusive of collaboration interaction and the role of key partners) in Marion County:

**Community development and coalition building**

**ALL Team Accomplishments**
- Working with 5 county community teams (building on Healthy Start Coalitions) to develop the statewide disparities plan.
  Dr. Wilder-Braithwaite, Director of Mobile Health Programs at Childrens National Health Center, Washington, DC, observed “in some communities the struggle is more than lack of health care, it is the lack of hope.” She challenged community members as well as health care providers to move beyond stagnation and passivity to become active health care advocates for equity, insurance, quality of care, etc. She cautioned providers not to settle for simplistic, “myth based”, approaches to cultural competence training, but to invest in transformational strategies to promote “giving dignified care” to diverse public health consumers. IHS initiated and sponsored Dr. Wider-Braithwaite’s visit to Indianapolis.
- IHS Consumer Connection Conference May 1, 2004 (Dr. Gloria Wilder-Braithwaite-keynote speaker).
- State Perinatal Disparities Conference October 1, 2004 (IHS co-sponsor).
- Advocacy training for IHS Baby First Advocates February 8, 2005 (IHS sponsor).
- IHS hired a consumer as a full time Community Health Worker August 30, 2004.
- Consumers were hired as Community Outreach Workers in temporary positions as the budget would allow during the Spring of 2004 and 2005.
(inclusive of collaboration interaction and the role of key partners) in Marion County: (Continued)

**Data collection and dissemination**

a. County data book were compiled and distributed (October 2004).
b. PPOR was introduced to the community at the IHBC July 30, 2004 by IHS Project Manager, Data Manager, and MCHD Epidemiologist.
c. FIMR/PPOR integration training was completed by the MCHD MCH FIMR Coordinator.
d. Focus groups (5 focus groups completed in Marion and Lake counties)-IHS consumers participated in the focus groups.
e. Prenatal, Pediatric and Provider surveys (completed by Indiana Access –Marion County).
f. IHS is capable of having access to data from the MCHD immunization and vital records databases.
g. The ability to link into the health records at HealthNet and the Wishard Health Service Client databases is also available. HIPAA rules are applied to handling of all protected health information.

**Public/Professional awareness**

c. Town hall meetings on disparities in 5 counties.
d. IHS Communicator published and distributed (newsletter which detailed the IMR and disparity issues in Marion County).
e. Healthy Start Project Director received a Title V MCH grant to develop preconception and interconception protocols.

**Care delivery and quality assurance**

a. IHS assisted with the Indiana State Department of Health Needs Assessment to develop a 5-year State strategic plan.
b. Surveys were completed by IHS and IHBC regarding the Local Health Action Plan.
D. Local Government Role

Indianapolis Healthy Start has the privilege of being co-located in the capital city with the State Title V program and the Indiana State Department of Health. The relationship with Title V program has been elaborated on in the Collaboration Section of this report. Because of Healthy Start’s strong relationship to the Title V program and the focus on educating the local, state and national legislators about the Healthy Start Program, facilitation to program development for both programs was manifested from support from elected leaders on each of the three levels. The Honorable U.S. Senator Richard Lugar has been a strong supporter of Healthy Start. He is very interested in the issue of maternal and child health. He is a co-sponsor of the Prevent Prematurity and Improve Child Health Act of 2005. This legislation seeks to improve Medicaid and SCHIP to reflect our current state of knowledge on pre-term birth. This bill utilizes medical research on smoking that supports the premise that smoking is a considerable risk factor for pre-term and low birth weight infants. This bill translates this knowledge into practice by ensuring that smoking cessation services and pharmaceuticals are available for pregnant women enrolled in Medicaid. On May 25, 2000, Congress passed, and the President signed the Lugar-Carson Access to Children’s Health Insurance Program Act. This bill allowed greater use of school lunch participation records to identify eligible children. In addition, the bill encouraged greater cooperation among schools, childcare facilities and WIC clinics to enroll children eligible for Medicaid and S-Chip. Senator Lugar, with his colleague, Senator Bingaman, introduced the Children’s Express Lane to Health Coverage Act of 2003 to give states greater flexibility in the ways they can enroll uninsured children into Medicaid and SCHIP while at the same time increasing government efficiency. Another initiative Senators Lugar and Bingaman have been working on is the Start Healthy, Stay Healthy Act. This bill was written to help expand coverage to children and pregnant women. It was noted that 6.7 million, or nearly two-thirds of all uninsured children are eligible for Medicaid or CHIP, but remain uninsured. In addition according to the March of Dimes, over 95% of all uninsured pregnant women could be covered through a combination of aggressive Medicaid outreach, maximizing coverage for young women through CHIP, and expanding CHIP to remove the 18-year-old age limit on covering pregnant women. This bill takes sensible steps in the expansion of coverage for pregnant women, and it provides states fiscal incentives to eliminate governmental imposed barriers to coverage. It provides states with an enhanced Medicaid matching rate to ensure that children eligible for Medicaid or CHIP leave the hospital insured and remain insured through the first year of life. This bill imposes no federal mandates on states. The passage of these bills will enhance the strong relationship that Title V and Healthy Start have in their commitment to improving the health status of women, infants, children, and families by providing access to the benefits provided by the aforementioned programs. Benefits from relationships with Title V, Medicaid, SCHIP, State Children with Special Health Care Needs Program and The State Early Intervention Program is that access to these services are made available to Healthy Start and community clients. Collaboration in outreach activities for SCHIP enrollment has been ongoing.

Data from the results of the focus groups supported by Healthy Start and conducted by Indiana Access indicated that a theme for the community to focus on to improve birth
outcomes based on this data is unintended pregnancies. The Project Director for Indiana Access provided data regarding the extremely high rate of unintended pregnancies and low use of birth control to state legislators. This data was very instrumental in getting SB572 passed in the spring of ’05. SB572 required the Medicaid program to submit a Family Planning Waiver to extend Medicaid eligibility for pregnant women for an additional two years to cover family planning related services which will not include the performance of abortions or “the use of drug or device intended to terminate a pregnancy after fertilization.”

E. Lessons Learned

1) There is a need for Medicaid presumptive eligibility. The Medicaid enrollment process impedes early entry into care.

2) Women lose Medicaid coverage after the postpartum visit. Women’s health care needs extend beyond the postpartum period and often evolve into chronic, debilitating illnesses, due to lack of insurance to access care.

3) Collaborative and extensive outreach efforts are imperative to increasing awareness of benefits and enrollment in Medicaid and S-CHIP.

4) Collaborative efforts to train consumers to advocate for their health and the health of their community must be an ongoing priority of Healthy Start, Title V, and other key partners.

5) Community residents are crucial to developing strategies to link providers, consumers, and neighborhoods to existing health and social resources.

6) We can no longer provide services as we have been doing.

7) We must look for unknowns that create barriers to the MCH population in seeking health care and choosing health behaviors.

8) We must look to our neighborhoods for resources within to support, nurture and educate families at risk for poor perinatal outcomes.

9) Healthy Start is the only federally funded community based infant mortality reduction program in a position to foster changes in perinatal health care delivery and systems changes that will result in closing the gaps in perinatal health outcomes.

10) Local, regional, state, and national partnerships, and a strong state based ALL team, can enhance Healthy Start efforts.
VI. LOCAL EVALUATION

HEALTHY START LOCAL EVALUATION REPORT

PROJECT NAME: Indianapolis Healthy Start

TITLE OF REPORT: Report of Evaluation Activities for the First Budget Year CY2001

AUTHORS: Haywood Brown, MD

Section I: Introduction

Local Evaluation Component. Beginning July 2001, The United States Department of Health and Human Services awarded the Marion County Health Department of the Health and Hospital Corporation federal funds for a second four-year Healthy Start program. This second Indianapolis Healthy Start is a perinatal model program, which is different from the first Indianapolis Healthy Start adolescent model program. This program change required a corresponding change from evaluators in adolescent medicine to evaluators in perinatal medicine. This evaluation report was a summary of the evaluation team’s activities during the first year of project funding.

The Indianapolis Healthy Start evaluation team is led by Dr. Haywood Brown. Dr. Brown is a well-known and nationally recognized expert in maternal and fetal medicine. He has a long history of working closely with community organizations, public health agencies, and the medical community. Dr. Brown helped to begin a fetal infant mortality review program in Indianapolis and at the time of this report was Director of the Obstetrics and Gynecology residency program at an Indianapolis-based community hospital. Mr. Smith has helped to evaluate several local Maternal and Child Health programs and has worked closely with Dr. Brown in the past. Mr. Smith has a background in epidemiology and health services research that compliments Dr. Brown’s clinical background. A Data Manager completes the local evaluation team. This position was filled by Ms. Gail Borsenberger. The role of the Data Manager is to facilitate the collection and reporting of data collected by Indianapolis Healthy Start core service subcontractors. In addition, the Data Manager has primary responsibility for ensuring that the data collected in the Indianapolis Healthy Start Core Services Tracking System is accurate, complete, and performed in a highly efficient manner. The Data Manager also works closely with the Indianapolis Healthy Start Quality Assurance Coordinator who works directly with subcontractors to provide training and feedback. Therefore, the Indianapolis Healthy Start evaluation team provided guidance on development of project services, facilitation of data collection, review of data integrity, and data analysis.

Evaluation activities during this first grant year were focused on redesign of data collection systems, developing internally reporting capabilities, development of screening programs for obstetric risk and depression, development of a client satisfaction survey, staff education, and consultation with related organizations that support IHS activities.
Because much of the evaluation efforts were focused on development, this evaluation report was a formative study. It relied solely on qualitative information from the evaluation team itself. However, the chief evaluator was also a prominent founding member of the Indianapolis Healthy Babies Consortium (Dr. Brown), and there was a natural relationship between the evaluation of IHS and its consortium.

**Key Questions/Hypotheses.** This evaluation report sought to document what the evaluation team’s activities during the initial start of the grant. The report was also useful in describing what was needed to change Healthy Start models and an evaluation team. Lastly, the IHS evaluation team wanted to document rates and community trends in infant mortality.

**Section II: Process**

**Methods.** The evaluation team met several times to identify what were its major activities during the initial year of the grant and discuss who the activities were accomplished and evaluate their outcome.

**Data Sources.** Much of the information was obtained through evaluation meeting minutes, notes, and staff interviews. Information on community infant mortality rates and trends was obtained from the Epidemiology department of the Marion County Health Department.

**Measures.** Quantitative measures of infant mortality (rate per 1000 live births during the corresponding year) stratified by race and year were obtained by the evaluation team. Other qualitative information is presented in the report.

**Section III: Findings and Discussion**

**Results.** The evaluation team felt that the overall design of data collection systems was successful. The design allowed for Marion County Health Department to be the central depository, which eliminated confidentiality concerns between subcontracted providers. This also allowed the IHS staff to access related information housed by the MCHD, such as birth certificates and immunization records. Redesign and implementation of the database by Health and Hospital Corporation of Marion County (MCHD parent organization) was accomplished in less than 6 months, after the initial design had taken 2 years to implement. The evaluation team also selected the Edinburgh Postnatal Depression Scale (EPDS) for use by IHS subcontractors. The EPDS was a well-established instrument with good sensitivity and specificity for postnatal depression. The evaluation team developed a client satisfaction survey based on several published survey instruments. To facilitate the data collection, the evaluation teams also created a separate database to store and report the results of the survey. The evaluation team thought this was necessary to ensure that the results remained both anonymous and confidential from its subcontractors. The IHS evaluation team elected to postpone final adoption of a formal obstetric risk assessment tool. The chief evaluator was collaborating with the Indiana Medicaid program which was also in the process of developing and requiring an
obstetric risk assessment. Since all of the IHS subcontractors would already be required to complete the Indiana Medicaid perinatal risk assessment, this would likely cause duplication of effort and resistance from providers. Therefore, the IHS evaluation team elected to collaborate with the Medicaid perinatal risk assessment and evaluate its effectiveness after implementation. The evaluation team also felt that the education and awareness created through a community-based substance abuse committee was an excellent way to introduce members of the IHS subcontractors and the community.

This evaluation report also documented that the rate of infant deaths in the IHS community has been steadily declining since 1997. Declines were evident in several racial groups, yet all disparities between white and minorities still was evident.

Discussion. This evaluation report describes important work in the development of an evaluation process for a new Healthy Start perinatal model.

Study Limitations. Input on the success of the evaluation team during its first year was subjective and based on input from the evaluation team, IHS program staff, and MCHD staff. During this first year of implementation, objective evaluation measures were not possible.

Section IV: Recommendations

No formal program or policy recommendations were made as a result of this evaluation report. It was decided that future evaluation reports should begin to document the effectiveness of the program in the community to reduce infant mortality and its correlates.

Section V: Impact

Since no formal recommendations were made as a result of this evaluation report, there was no formal tracking of their impact.

Section VI: Publications

At this time there have been no professional, or peer reviewed publications based on this evaluation report. The evaluation report was shared with IHS subcontractors and the Indianapolis Healthy Babies consortium.
HEALTHY START LOCAL EVALUATION REPORT

PROJECT NAME: Indianapolis Healthy Start

TITLE OF REPORT: Indianapolis Healthy Start Annual Evaluation Report for CY2002

AUTHORS: Haywood Brown, MD and Mark Smith, MS

Section I: Introduction

Local Evaluation Component. The local evaluation team and Indianapolis Healthy Start staff believed that local evaluation was a necessary component to help support concerns by any funding agencies the outcome and effectiveness of the program. This evaluation report would focus heavily on the impact of core services (case management, health education, and outreach) by Indianapolis Healthy Start subcontractors in the Indianapolis community. While Indianapolis Healthy Start staff expressed a desire to use the evaluation reports as a continuous quality improvement tool, much of the design of the evaluation report was done by the local evaluation team and its authors.

The Indianapolis Healthy Start evaluation team is led by Dr. Haywood Brown. Dr. Brown is a well-known and nationally recognized expert in maternal and fetal medicine. He has a long history of working closely with community organizations, public health agencies, and the medical community. Dr. Brown helped to begin a fetal infant mortality review program in Indianapolis and at the time of this report was Director of the Obstetrics and Gynecology residency program at an Indianapolis-based community hospital. Mr. Smith has helped to evaluate several local Maternal and Child Health programs and has worked closely with Dr. Brown in the past. Mr. Smith has a background in epidemiology and health services research that compliments Dr. Brown’s clinical background. A Data Manager completes the local evaluation team. This position was filled by Ms. Gail Borsenberger during the first 2 years of the grant, but later filled by Ms. Julie Sautter (in August of 2003) about the time of this evaluation report. The role of the Data Manager is to facilitate the collection and reporting of data collected by Indianapolis Healthy Start core service subcontractors. In addition, the Data Manager has primary responsibility for ensuring that the data collected in the Indianapolis Healthy Start Core Services Tracking System is accurate, complete, and performed in a highly efficient manner. The Data Manager also works closely with the Indianapolis Healthy Start Quality Assurance Coordinator who works directly with subcontractors to provide training and feedback. Therefore, the Indianapolis Healthy Start evaluation team provided guidance on development of project services, facilitation of data collection, review of data integrity, and data analysis.

Much of the work of the Indianapolis Healthy Start evaluation team revolves around the Indianapolis Healthy Start Core Services Tracking System. This is an electronic database that captures information from Indianapolis Healthy Start subcontractors that provide case management, health education, and outreach services. The database was constructed and maintained by the Health and Hospital Corporation of Marion County (HHCMC),
which is the parent organization to the Indianapolis Healthy Start and the Marion County Health Department. Because of the unique role of the HHCMC, Indianapolis Healthy Start staff could receive confidential protected health information about its clients and also provide Indianapolis Healthy Start staff access to information collected through the Marion County Health Department (vital statistics and immunization records). The HHCMC has extensive experience in provision electronic data collection software applications, yet the local evaluation team and HHCMC staff involved with maintaining the Core Services Tracking System learned much during the first two years of the project.

This evaluation report was primarily an assessment of program outcomes compared to the outcomes of similar community members. However, the evaluation report did also examine many process measures and made recommendations that also provided formative input into the program. Indianapolis Healthy Start staff planned early to share results of the evaluation reports with members of the Indianapolis Healthy Babies Consortium and other community members, yet the evaluation team did not seek their direct input into the design of the evaluation reports.

**Key Questions/Hypotheses.** The evaluation report sought to assess whether the program met its objectives related to case management services, health education and outreach, prenatal care services, birth outcomes, maternal and infant care, and mortality. In addition, the evaluation team sought to develop a methodology to fairly compare birth outcomes between program participants and community members despite socio-demographic differences between the two study groups.

**Section II: Process**

**Methods.** The evaluation used a post-only non-randomized comparison group to compare the birth outcomes between Indianapolis Healthy Start clients to other Marion County residents who gave birth during the same time period. Because the program was designed to recruit women most likely to experience disparate birth outcomes the evaluation team followed methods described by Baldwin and others to construct multiple social and medical risk factors widely available on birth certificates. The report authors then calculated propensity scores for program participation based on a multivariate logistic regression model with these social and medical risk factors as independent variables in the model. The resulting probability (or propensity) of program participation based on log likelihood ratios of multiple risk factors were then added together producing an overall probability estimate bound between 0 and 1. This overall probability estimate was categorized into 5 levels and then used as a blocking or stratification variable in all statistical tests to compare birth outcomes.

**Data Sources.** Data for the evaluation report was provided from Indianapolis Healthy Start staff (Data Manager) and the Marion County Health Department (Vital Statistics). Program data was collected by Indianapolis Healthy Start subcontractors and directly entered into the Indianapolis Healthy Start Core Services Tracking System. Information on births and deaths to Marion County residents was collected through its existing vital statistics program and released in the form of an electronic file with individual records for
each event. The deficiencies associated with vital statistics information are well documented. They include frequent inaccuracies regarding the mother’s use of prenatal care, race and ethnicity, under-reporting of maternal smoking, alcohol and substance abuse, often incomplete demographic information for the father, missing information on baby’s gestational age, unreliable reporting of stillborns and fetal deaths, and inconsistent data collection methods between hospitals. Despite these shortcomings, vital statistics represents the single, most complete record of all births and deaths to community residents. The evaluation report also adopted a standard definition that all births and reported fetal deaths would only be considered for viable infants whose gestation was reported to be 20 weeks or greater. Broad community wide information on pregnancies terminated less than 20 weeks was considered to be unreliable and was excluded from this evaluation report.

The authors of the report created a process to electronically link information between the Indianapolis Healthy Start Core Services Tracking System and vital statistics information maintained by the Marion County Health Department. Preliminary matching processes produced linkages in less than 80% of the cases, which the evaluation team felt was inadequate. Use probabilistic matching algorithms on a broader array of data elements including mother’s name, address, maternal date of birth, baby date of birth, and baby’s name the rate of identification of Healthy Start births in vital statistics exceeded 95%. Births to Healthy Start clients without matching vital statistics information were individually investigated and often found to have delivered outside of the Marion County Health Department vital statistics reporting area (1-2% of all Healthy Start births).

**Measures.** The evaluation report included information on a broad array of widely reported Maternal and Child Health indicators. The process measures reported were set out in the initial Indianapolis Healthy Start grant application and are part of the required information for continuation applications. These process measures address information on enrollment and utilization of case management services, screening and referral of program clients, provision of health education, outreach activities to community members, initiation and utilization of prenatal care services, birth weight and gestation, primary medical care for clients, and infant mortality. The evaluation team researched existing data sources to estimate what were preliminary baseline measures for all indicators and then set targets (project objectives) for each indicator. This evaluation report helped to document the progress of the project against these indicators, as well as document findings about the measurement process. Furthermore, the evaluation report compared rates of low birth weight, prematurity, initiation and utilization of prenatal care, and infant mortality between Indianapolis Healthy Start participants and all other community members.

**Section III: Findings and Discussion**

**Results.** Both primary objectives for the evaluation report were met. The authors of the report were able to assess the project’s progress on a broad array of indicators for maternal and child health as well as compare birth outcomes between project participants against those of other community members. The program exceeded 6 of its 13 objectives...
in the areas of birth outcomes (3 of 4), case management services (1 of 3), provision of health education and outreach (2 of 2), maternal and infant care (1 of 2), and prenatal care services (0 of 1). IHS staff and subcontractors had difficulty measuring completion of an obstetric risk assessment, completion of EPSDT visits, and rates of immunizations. Rates of low birth weight, prematurity, and prenatal care services were similar to other community members after stratification for socioeconomic differences between the study groups. The rate of postneonatal deaths was significantly higher among Indianapolis Healthy Start clients (12.8 per 1000 live births vs. 1.6, p=0.03).

Discussion. While the evaluation team felt the report met its objectives and provided information to help guide the program, much was also learned about data collection and reliability. During the report preparation the evaluation team overhauled much of the basic structure of the IHS Core Services Tracking System. Staff had to quickly develop ways to maintain personal identifiers when clients were seen at multiple program sites and began enrolling multiple times. The database also needed to track pregnancies differently than clients so that it became easier to identify when a pregnancy was terminated and the information could be linked to vital statistics records. Working with vital statistics also presented challenges, and the evaluation team developed an electronic process to efficiently link records while protecting protected health information. While the more sophisticated statistical comparison of birth outcomes and mortality did not provide any evidence of the program’s effectiveness, the modest differences were encouraging. Also, the focus on reducing adverse birth events in the community helps focus the program beyond the traditional process measures.

Study Limitations. This report was the evaluation first attempt to assess the effectiveness of the program to reduce adverse birth outcomes. The unreliability of birth certificate information is well documented in the literature, yet this served as one of the primary data sources for this study. Further evaluation reports will need to further explore the reliability of this information in the IHS community, as well as its impact on the evaluation methodology.

Section IV: Recommendations

The evaluation team made 8 recommendations on project implementation and data collection. They are:

1. IHS staff should carefully review all deaths, particularly post-neonatal deaths, with the intent of developing community-based interventions on mortality contributing factors.
2. IHS staff should examine missed objectives to determine programmatic opportunities, such as differences in sites, training and education needs, and documentation systems.
3. Increase the rate of IHS clients who are breastfeeding at hospital discharge to at least 60%.
4. While the reliability of information on post-partum retention is questionable, the program should improve its reliability and increase retention.
5. IHS should partner with other government programs to remove programmatic barriers to obtaining prenatal care services, and therefore increase the percentage of IHS clients who start prenatal care during their first trimester of pregnancy.

6. IHS staff and the evaluation team should improve the data collection process that supports measuring immunization rates.

7. IHS staff and subcontractors should increase the completion of client satisfaction surveys to at least 45%.

8. Increase the percentage of IHS clients who abstain from smoking while pregnant to 80%.

In addition to program recommendations, the evaluation team decided that future evaluation reports should address the following questions:

1. Which risk factors contribute the most to adverse birth events in IHS participants and community residents?

2. What segments of IHS participants who are less likely than similar community members to have an adverse birth event?

3. What segments of IHS participants does the program appear to be ineffective at reducing the risk of adverse birth events?

4. What community trends related to infant mortality risk factors is likely to be influencing the program?

Section V: Impact

The Marion County Health Department reinstated its Fetal and Infant Mortality Review (FIMR) program about the time of this evaluation report. While this was not a specific recommendation, the need for this program for both the community and IHS is well documented in the evaluation report. The FIMR review nurse also reports to the Director of Maternal and Child at Marion County Health Department, which also oversees the IHS program.

IHS staff also increased the percentage of clients who began prenatal care in their first trimester from 69% to 72%, based on the following activities:

- implemented Baby First Advocate program providing outreach and health education services to high infant mortality zip code areas;
- collaboration with Covering Kids program distributing early prenatal care and coverage ad campaign; and
- identified clinic and community pregnancy testing sites for Healthy Start referrals.

The IHS staff and evaluation team completed a programmatic site review of unmet objectives. The evaluation team felt that much of failure to meet objectives was related to unreliable data collection. Therefore, the team revised data collection strategies to insure uniform definitions and review indicators and operational definitions so that reported data matches the intent of requested data. In addition, the Healthy Start database was redesigned to ensure data collection of all program objectives and required performance measures.
The rate of IHS clients who breastfeed upon discharge increased from 44% in CY2002 to 52% in CY2003, but missed the objective of 60%. Improvement was the result of the following activities:

- Healthy Start staff received in-service training on breastfeeding benefits in addition to strategies to encourage breastfeeding to their clients.
- Implemented tracking of breastfeeding plans at time of enrollment and practices at every client encounter.
- Encouraged lactation consultant training to all Healthy Start subcontractors, five subcontractors have completed the training.
- Implemented breast pump distribution program at Wishard Hospital and ancillary clinic sites and Marion County Health Department for staff and Healthy Start clients.

Section VI: Publications

At this time there have been no professional, or peer reviewed publications based on this evaluation report. The evaluation report was shared with IHS subcontractors and the Indianapolis Healthy Babies consortium.
HEALTHY START LOCAL EVALUATION REPORT

PROJECT NAME: Indianapolis Healthy Start

TITLE OF REPORT: Indianapolis Healthy Start Annual Evaluation Report for CY2003

AUTHORS: Haywood Brown, MD and Mark Smith, MS

Section I: Introduction

Local Evaluation Component. The local evaluation team and Indianapolis Healthy Start staff believed that local evaluation was a necessary component to help support concerns by any funding agencies the outcome and effectiveness of the program. This evaluation report would focus heavily on the impact of core services (case management, health education, and outreach) by Indianapolis Healthy Start subcontractors in the Indianapolis community. While Indianapolis Healthy Start staff expressed a desire to use the evaluation reports as a continuous quality improvement tool, much of the design of the evaluation report was done by the local evaluation team and its authors.

The Indianapolis Healthy Start evaluation team is led by Dr. Haywood Brown. Dr. Brown is a well-known and nationally recognized expert in maternal and fetal medicine. He has a long history of working closely with community organizations, public health agencies, and the medical community. Dr. Brown helped to begin a fetal infant mortality review program in Indianapolis and at the time of this report was Director of the Obstetrics and Gynecology residency program at an Indianapolis-based community hospital. Mr. Smith has helped to evaluate several local Maternal and Child Health programs and has worked closely with Dr. Brown in the past. Mr. Smith has a background in epidemiology and health services research that compliments Dr. Brown’s clinical background. A Data Manager, Ms. Julie Sautter, completes the local evaluation team. The role of the Data Manager is to facilitate the collection and reporting of data collected by Indianapolis Healthy Start core service subcontractors. In addition, the Data Manager has primary responsibility for ensuring that the data collected in the Indianapolis Healthy Start Core Services Tracking System is accurate, complete, and performed in a highly efficient manner. The Data Manager also works closely with the Indianapolis Healthy Start Quality Assurance Coordinator who works directly with subcontractors to provide training and feedback. Therefore, the Indianapolis Healthy Start evaluation team provided guidance on development of project services, facilitation of data collection, review of data integrity, and data analysis.

Much of the work of the Indianapolis Healthy Start evaluation team revolves assessing and improving the data collection systems that document program activities. In addition, the evaluation team helps to establish effective linkages to secondary data streams, such as vital statistics and immunization registries. The evaluation team also consults to community perinatal groups supported by the IHS, such as Perinatal Periods of Risk approach to analyze and develop community improvement strategies to reduce infant mortality, the Indiana Friendly Access project, the Marion County Fetal and Infant
Mortality Review program, and the Indianapolis Healthy Babies consortium. The major focus of the IHS evaluation team is to demonstrate and improve the effectiveness of the IHS core services in the community.

This evaluation report is primarily an outcome evaluation, and statistics on birth outcomes and mortality help to ensure that the program remains focused on its effectiveness in the Marion County community. The evaluation report also has a component that is a process evaluation focused on key components of the IHS core services, and a formative evaluation that develops recommendations and tracks progress on previous recommendations.

**Key Questions/Hypotheses.** The primary question addressed by the evaluation report is to determine if IHS clients have lower rates of low birth weight, prematurity, and mortality than comparable community members. The report also documents whether the program met its objectives related to case management services, health education and outreach, prenatal care services, birth outcomes, maternal and infant care, and mortality. Therefore, the evaluation team hopes to begin to see which process measures and components of the IHS program are most effective in reducing adverse birth events. Lastly, the program seeks to understand how it is being affected by changes in social and medical risk factors in the community.

**Section II: Process**

**Methods.** The evaluation used a post-only non-randomized comparison group to compare the birth outcomes between Indianapolis Healthy Start clients to other Marion County residents who gave birth during the same time period. Because the program was designed to recruit women most likely to experience disparate birth outcomes the evaluation team followed methods described by Baldwin and others to construct multiple social and medical risk factors widely available on birth certificates. The report authors then calculated propensity scores for program participation based on a multivariate logistic regression model with these social and medical risk factors as independent variables in the model. The resulting probability (or propensity) of program participation based on log likelihood ratios of multiple risk factors were then added together producing an overall probability estimate bound between 0 and 1. This overall probability estimate was categorized into 5 levels and then used as a blocking or stratification variable in all statistical tests to compare birth outcomes.

**Data Sources.** Data for the evaluation report was provided from Indianapolis Healthy Start staff (Data Manager) and the Marion County Health Department (Vital Statistics). Program data was collected by Indianapolis Healthy Start subcontractors and directly entered into the Indianapolis Healthy Start Core Services Tracking System. Information on births and deaths to Marion County residents was collected through its existing vital statistics program and released in the form of an electronic file with individual records for each event. The deficiencies associated with vital statistics information are well documented. They include frequent inaccuracies regarding the mother’s use of prenatal care, race and ethnicity, under-reporting of maternal smoking, alcohol and substance
abuse, often incomplete demographic information for the father, missing information on baby’s gestational age, unreliable reporting of stillborns and fetal deaths, and inconsistent data collection methods between hospitals. Despite these shortcomings, vital statistics represents the single, most complete record of all births and deaths to community residents. The evaluation report also adopted a standard definition that all births and reported fetal deaths would only be considered for viable infants whose gestation was reported to be 20 weeks or greater. Broad community wide information on pregnancies terminated less than 20 weeks was considered to be unreliable and was excluded from this evaluation report.

The authors of the report created a process to electronically link information between the Indianapolis Healthy Start Core Services Tracking System and vital statistics information maintained by the Marion County Health Department. Preliminary matching processes produced linkages in less than 80% of the cases, which the evaluation team felt was inadequate. Use probabilistic matching algorithms on a broader array of data elements including mother’s name, address, maternal date of birth, baby date of birth, and baby’s name the rate of identification of Healthy Start births in vital statistics exceeded 95%. Births to Healthy Start clients without matching vital statistics information were individually investigated and often found to have delivered outside of the Marion County Health Department vital statistics reporting area (1-2% of all Healthy Start births).

**Measures.** The evaluation report included information on a broad array of widely reported Maternal and Child Health indicators. The process measures reported were set out in the initial Indianapolis Healthy Start grant application and are part of the required information for continuation applications. These process measures address information on enrollment and utilization of case management services, screening and referral of program clients, provision of health education, outreach activities to community members, initiation and utilization of prenatal care services, birth weight and gestation, primary medical care for clients, and infant mortality. The evaluation team researched existing data sources to estimate what were preliminary baseline measures for all indicators and then set targets (project objectives) for each indicator. This evaluation report helped to document the progress of the project against these indicators, as well as document findings about the measurement process. The evaluation report also compared rates of low birth weight, prematurity, initiation and utilization of prenatal care, and infant mortality between Indianapolis Healthy Start participants and all other community members. Lastly, the evaluation report sought to identify which risk factors contribute the most to rates of adverse birth events, and how effective the program is in mitigating the risk associated with these factors. These measures are presented using standard epidemiologic indices such as the etiologic fraction and rates of relative risk.

**Section III: Findings and Discussion**

**Results.** The program exceeded 2 of 6 case management objectives (depression screening and post-partum retention exceeded objectives), 1 of 2 health education and outreach objectives (provision of health education exceeded objective), 0 of 2 prenatal care objectives, 3 of 3 birth outcome objectives (birth weight less than 2500 grams, birth
weight less than 1500 grams, and gestation less than 37 weeks exceeded objectives), and 1 of 2 maternal and infant care objectives (breast feeding at discharge exceeded objective). IHS staff and subcontractors had difficulty measuring completion of an obstetric risk assessment, completion of EPSDT visits, rates of immunizations, and whether infant participants have a medical home. IHS participants, who were at higher risk for an adverse birth event based on social factors, started prenatal care services later than lower risk IHS participants.

The average month prenatal care services began among socially high risk IHS participants was 3.1 compared to 2.7 for lower risk participants (p=0.02). However, socially high risk IHS participants were more likely to have higher rates of prenatal care utilization than comparable socially high risk community members. The rate of socially high-risk IHS participants who attended 90% or more of the recommended number of prenatal care visits (classified as “adequate” or “adequate plus” using the APNCU index) was 62.6% compared to 55.4% for community members (p=0.03). IHS participants were also less likely to deliver a very low birth weight or extremely premature newborn. The percentage of IHS participants delivering an infant less than 1500 grams (very low birth weight) was 0.5% compared to 1.9% among similar community members (p=0.02). The percentage of IHS participants delivering a newborn less than 32 weeks of gestation was 1.0% compared to 2.2% for similar community members (p=0.04). Unfortunately, the rate of post-neonatal deaths among IHS participants was 9.9 deaths per 1000 births compared to 2.2 among similar community members (p=0.03).

Social risk factors are the largest attributable risk factors for adverse birth events among both IHS participants and the IHS community. IHS participants who are not married, pregnant for the first-time or more than 5 previous times, or smoked had the largest etiologic fractions for adverse birth events, 45%, 36% and 31% respectively.

**Discussion.** The program is beginning to demonstrate its effectiveness on perinatal measures on in the community. However, a higher than expected rate of post-neonatal mortality mitigates any differences in infant mortality rates between IHS participants and similar community members. It also appears that the program may be achieving these effects through increasing the utilization of prenatal care services. However, case managers also provide a variety of health education services and smoking cessation counseling. It is difficult to tell which aspects of the program are contributing to its success based on project objectives, because of the subjective nature the objectives are set and problems with reliable data collection systems.

**Study Limitations.** The report documents reduced rates of 2 important perinatal birth outcomes among IHS participants. The unreliability of birth certificate information is well documented in the literature, yet this served as one of the primary data sources for this study. Further evaluation reports will need to further explore the reliability of this information in the IHS community, as well as its impact on the evaluation methodology.
Section IV: Recommendations

The evaluation team made 5 recommendations on project implementation and data collection. They are:

9. Create a process to ensure that all post-neonatal and as many perinatal deaths as possible of IHS participants are reviewed by the Marion County Health Department Fetal and Infant Mortality Review program.

10. Suggest that the Marion County Health Department Fetal and Infant Mortality Review program also uses a similar set of risk factors that are used by the IHS evaluation team. This will help provide continuity and understand what contributing factors are associated with specific social and medical risk factors.

11. IHS should begin monitoring retention longer than 6 weeks post-partum and monitor to assess that interconceptional clients are being actively seen by case managers.

12. Continue to try and increase rates of breastfeeding at hospital discharge among IHS participants to 60%.

13. Complete a brief study to determine how women that are classified as either “socially high-risk” or “medically high-risk” based on birth certificate information are classified by IHS case managers on their obstetric risk assessment tool.

In addition to program recommendations, the evaluation team decided that future evaluation reports should address the following questions:

5. Which risk factors contribute the most to adverse birth events in IHS participants and community residents?

6. What segments of IHS participants who are less likely than similar community members to have an adverse birth event?

7. What segments of IHS participants does the program appear to be ineffective at reducing the risk of adverse birth events?

8. What community trends related to infant mortality risk factors is likely to be influencing the program?

Section V: Impact

The Marion County Health Department Fetal and Infant Mortality Review program established review processes at all major hospitals in Indianapolis. This was necessary to ensure that MCHD FIMR staff would have access to a complete medical history of IHS clients, regardless of the hospital where the death occurred or the newborn delivered. IHS staff also developed a way to monitor deaths reported through the MCHD vital statistics program to IHS clients. Therefore, any deaths that are discovered through vital statistics are also reported to the MCHD FIMR program for review. The MCHD FIMR also included all risk factors used by the IHS evaluation team in its reviews.

The IHS evaluation staff also created an internal report that monitors the intensity of case management services based on its risk leveling system. In addition, IHS evaluation staff created a report for case managers that show them a client's risk level, last encounter, and
when another encounter is “due”. Clients that have gone more than a month beyond their “due” encounter are separated on the report for additional follow-up. Clients that go several months beyond their due encounter are subject to administration termination. Since case manager case loads are also tightly monitored, case managers must keep in close contact with all clients, including interconceptional women.

The IHS staff has made significant efforts to improve rates of breastfeeding. Some of the activities include:

- Several case managers attended lactation consultant training;
- Breastfeeding education and support were integrated into the program’s core curriculum.
- IHS collaborated with WIC to provide early postpartum period support;
- Improved data collection process regarding breastfeeding;
- IHS staff helped provide each facility owned by the Health and Hospital Corporation of Marion County a hospital grade, a multiple user electric breast pump for use by breastfeeding clients and staff;
- IHS collaborated with community partners such as the Indianapolis Healthy Babies Consortium, the WIC program, March of Dimes, the Le Leche League, and the Indiana Perinatal Network to promote breastfeeding in the community, to provide staff training, to encourage provider support for breastfeeding, and combine efforts for broader community outreach and referral activities;
- IHS outreach and health education staff conducted community education in collaboration with community partners in schools, clinic waiting areas, churches, and daycare centers.

The IHS evaluation team completed a comparison of the prenatal risk level assigned by IHS case managers compared to their risk level determined by the risk factors documented on birth certificate records. While the under-reporting of many maternal medical risk factors on birth certificate records is well documented, the IHS case management risk level was in poor agreement often classifying a IHS participant at a lower risk level. The IHS evaluation team recommended developing a different method to assign a prenatal care risk level.

Section VI: Publications

At this time there have been no professional, or peer reviewed publications based on this evaluation report. The evaluation report will be shared with IHS subcontractors and the Indianapolis Healthy Babies consortium.
HEALTHY START LOCAL EVALUATION REPORT

PROJECT NAME: Indianapolis Healthy Start

TITLE OF REPORT: Indianapolis Healthy Start Annual Evaluation Report for CY2004

AUTHORS: Haywood Brown, MD and Mark Smith, MS

Section I: Introduction

Local Evaluation Component. The local evaluation team and Indianapolis Healthy Start staff believed that local evaluation was a necessary component to help support concerns by any funding agencies the outcome and effectiveness of the program. This evaluation report would focus heavily on the impact of core services (case management, health education, and outreach) by Indianapolis Healthy Start subcontractors in the Indianapolis community. The Indianapolis Healthy Start staff expressed a desire to use the evaluation reports as a continuous quality improvement tool, but the design of the evaluation report was done by the local evaluation team and its authors.

The Indianapolis Healthy Start evaluation team is led by Dr. Haywood Brown. Dr. Brown is a well-known and nationally recognized expert in maternal and fetal medicine. He has a long history of working closely with community organizations, public health agencies, and the medical community. Dr. Brown helped to begin a fetal infant mortality review program in Indianapolis and at the time of this report was Director of the Obstetrics and Gynecology residency program at an Indianapolis-based community hospital. Mr. Smith has helped to evaluate several local Maternal and Child Health programs and has worked closely with Dr. Brown in the past. Mr. Smith has a background in epidemiology and health services research that compliments Dr. Brown’s clinical background. A Data Manager, Ms. Julie Sautter, completes the local evaluation team. The role of the Data Manager is to facilitate the collection and reporting of data collected by Indianapolis Healthy Start core service subcontractors. In addition, the Data Manager has primary responsibility for ensuring that the data collected in the Indianapolis Healthy Start Core Services Tracking System is accurate, complete, and performed in a highly efficient manner. The Data Manager also works closely with the Indianapolis Healthy Start Quality Assurance Coordinator who works directly with subcontractors to provide training and feedback. Therefore, the Indianapolis Healthy Start evaluation team provided guidance on development of project services, facilitation of data collection, review of data integrity, and data analysis.

Much of the work of the Indianapolis Healthy Start evaluation team revolves assessing and improving the data collection systems that document program activities. In addition, the evaluation team helps to establish effective linkages to secondary data streams, such as vital statistics and immunization registries. The evaluation team also consults to community perinatal groups supported by the IHS, such as Perinatal Periods of Risk approach to analyze and develop community improvement strategies to reduce infant mortality, the Indiana Friendly Access project, the Marion County Fetal and Infant
Mortality Review program, and the Indianapolis Healthy Babies consortium. The major focus of the IHS evaluation team is to demonstrate and improve the effectiveness of the IHS core services in the community.

This evaluation report is primarily an outcome evaluation, and statistics on birth outcomes and mortality help to ensure that the program remains focused on its effectiveness in the Marion County community. The evaluation report also has a component that is a process evaluation focused on key components of the IHS core services, and a formative evaluation that develops recommendations and tracks progress on previous recommendations.

**Key Questions/Hypotheses.** The primary question addressed by the evaluation report is to determine if IHS clients have lower rates of low birth weight, prematurity, and mortality than comparable community members. The report also documents whether the program met its objectives related to case management services, health education and outreach, prenatal care services, birth outcomes, maternal and infant care, and mortality. Therefore, the evaluation team hopes to begin to see which process measures and components of the IHS program are most effective in reducing adverse birth events. Third, the program seeks to understand how it is being affected by changes in social and medical risk factors in the community. Lastly, this evaluation report examined whether the prenatal risk category assigned by IHS case managers was similar to the prenatal risk assignment based on vital records information, which closely mirrors the risk of an adverse birth event.

**Section II: Process**

**Methods.** The evaluation used a post-only non-randomized comparison group to compare the birth outcomes between Indianapolis Healthy Start clients to other Marion County residents who gave birth during the same time period. Because the program was designed to recruit women most likely to experience disparate birth outcomes the evaluation team followed methods described by Baldwin and others to construct multiple social and medical risk factors widely available on birth certificates. The report authors then calculated propensity scores for program participation based on a multivariate logistic regression model with these social and medical risk factors as independent variables in the model. The resulting probability (or propensity) of program participation based on log likelihood ratios of multiple risk factors were then added together producing an overall probability estimate bound between 0 and 1. This overall probability estimate was categorized into 5 levels and then used as a blocking or stratification variable in all statistical tests to compare birth outcomes.

**Data Sources.** Data for the evaluation report was provided from Indianapolis Healthy Start staff (Data Manager) and the Marion County Health Department (Vital Statistics). Program data was collected by Indianapolis Healthy Start subcontractors and directly entered into the Indianapolis Healthy Start Core Services Tracking System. Information on births and deaths to Marion County residents was collected through its existing vital statistics program and released in the form of an electronic file with individual records for
each event. The deficiencies associated with vital statistics information are well documented. They include frequent inaccuracies regarding the mother’s use of prenatal care, race and ethnicity, under-reporting of maternal smoking, alcohol and substance abuse, often incomplete demographic information for the father, missing information on baby’s gestational age, unreliable reporting of stillborns and fetal deaths, and inconsistent data collection methods between hospitals. Despite these shortcomings, vital statistics represents the single, most complete record of all births and deaths to community residents. The evaluation report also adopted a standard definition that all births and reported fetal deaths would only be considered for viable infants whose gestation was reported to be 20 weeks or greater. Broad community wide information on pregnancies terminated less than 20 weeks was considered to be unreliable and was excluded from this evaluation report.

The authors of the report created a process to electronically link information between the Indianapolis Healthy Start Core Services Tracking System and vital statistics information maintained by the Marion County Health Department. Preliminary matching processes produced linkages in less than 80% of the cases, which the evaluation team felt was inadequate. Use probabilistic matching algorithms on a broader array of data elements including mother’s name, address, maternal date of birth, baby date of birth, and baby’s name the rate of identification of Healthy Start births in vital statistics exceeded 95%. Births to Healthy Start clients without matching vital statistics information were individually investigated and often found to have delivered outside of the Marion County Health Department vital statistics reporting area (1-2% of all Healthy Start births).

Measures. The evaluation report included information on a broad array of widely reported Maternal and Child Health indicators. The process measures reported were set out in the initial Indianapolis Healthy Start grant application and are part of the required information for continuation applications. These process measures address information on enrollment and utilization of case management services, screening and referral of program clients, provision of health education, outreach activities to community members, initiation and utilization of prenatal care services, birth weight and gestation, primary medical care for clients, and infant mortality. The evaluation team researched existing data sources to estimate what were preliminary baseline measures for all indicators and then set targets (project objectives) for each indicator. This evaluation report helped to document the progress of the project against these indicators, as well as document findings about the measurement process. The evaluation report also compared rates of low birth weight, prematurity, initiation and utilization of prenatal care, and infant mortality between Indianapolis Healthy Start participants and all other community members. Lastly, the evaluation report sought to identify which risk factors contribute the most to rates of adverse birth events, and how effective the program is in mitigating the risk associated with these factors. These measures are presented using standard epidemiologic indices such as the etiologic fraction and rates of relative risk.
Section III: Findings and Discussion

Results. The program exceeded 1 of 7 case management objectives (completion of client satisfaction survey exceeded objective), 2 of 2 health education and outreach objectives (provision of health education and outreach encounters exceeded objectives), 0 of 2 prenatal care objectives, 3 of 3 birth outcome objectives (birth weight less than 2500 grams, birth weight less than 1500 grams, and gestation less than 37 weeks exceeded objectives), 1 of 4 maternal and infant care objectives (mother has a medical home exceeded program objective), and 1 of 4 mortality objectives (deaths less than 365 days met program objective). IHS staff and subcontractors had difficulty measuring completion of EPSDT visits, and rates of immunizations.

The prenatal risk category assigned by IHS case managers failed to show any association with the risk level based on birth certificates. Correlation coefficients between the case management risk level (3 levels) and the number of social risk factors from birth certificate records was $\rho=0.00$, $p=0.92$ and the number of medical risk factors from birth certificate records was $\rho=0.12$, $p=0.11$.

The IHS program has successfully reduced the rate of very low birth weight infants or extremely premature. There is also a modest, but not statistically significant, difference in the rate of all preterm births to IHS participants. The percentage births less than 1500 grams to IHS participants was 1.3% compared to 2.0% for community members ($p=0.01$). The percentage of births less than 32 weeks for IHS participants was 1.7% compared to 2.4% for community members ($p=0.03$). And the percentage of births less than 37 weeks (preterm) for IHS participants was 10.4% compared to 11.7% for community members ($p=0.10$).

Social risk factors are the largest attributable risk factors for adverse birth events among both IHS participants and the IHS community. IHS participants who are not married, pregnant for the first-time or more than 5 previous times, or African American (racial minority) had the largest etiologic fractions for adverse birth events, 45%, 35% and 35% respectively.

Discussion. The program has successfully reduced the rate of births less than 1500 grams or less than 32 weeks. While the program does not have direct proof that it has reduced the number of infant deaths, births less than 1500 grams or less than 32 weeks are at very high risk of death. In addition, we estimated that the program might have saved as much as $1.6 million in initial hospital charges associated with the reduction of births less than 32 weeks.

It is not clear why prenatal risk assessments by case managers and birth certificate data do not agree. Literature has documented the under-reporting of maternal medical risk factors, but it is clear that social risk factors are more prevalent and often have more likely to affect “lower” risk individuals. Since the birth certificate risk factors correlate well with the rate of adverse birth events, it is of greater concern that the risk level does not match the likelihood of a participant’s adverse birth event. There has been no
negative consequences from this mismatch, because the intensity of case management services did not differ by prenatal risk category. However, incorporating more social risk factors into the case manager’s risk assessment process seems an important next step.

The rate of retention of IHS participants after delivery remains well below project objectives. IHS staff set a goal to retain 73% of IHS clients up to 6 weeks after delivery during 2004 and 80% in 2005, but the rate in 2004 remained at 58%. While infant deaths to program participants who terminate service prior to the death are not counted as IHS participants and therefore not included in the higher than expected post-neonatal mortality rates. Retention in the program is an important strategy to reduce the communities’ post-neonatal mortality rate and merits improvement.

Efforts by IHS case managers and staff to improve the utilization of prenatal care services is not evident based on information from birth certificate records. IHS staff implemented a number of strategies to try and improve prenatal care utilization indices (APNCU index). However, the rates of utilization have remained similar during all 3 years of reporting. McDermott reported that birth certificates under-reported the number of prenatal care visits, which resulted in as many as 35% of women incorrectly classified as having “intermediate” prenatal care. Clark. reported that the difference in the number of prenatal care visits recorded on birth certificate and prenatal care records was 2 or less on 67% of all records. Therefore, modest improvements in prenatal care utilization by IHS may not be reported because of the reliability of birth certificate information. IHS also actively seeks out women in the community who are pregnant but not seeking prenatal care. Because the specific reliability of birth certificate information is unknown, assessment of the program’s impact on prenatal care utilization is difficult.

The majority of adverse birth events in Marion County can be attributed to the incidence of many social risk factors. At least one-third of all deaths, births less than 1500 grams or less than 32 weeks of gestation can be attributed unwed women, women who are pregnant for the first time or have had at least 5 prior pregnancies, or women of a racial minority. The incidence of these social risk factors has steadily increased since 2001. Even though the exact mechanism by which these social risk factors increase the likelihood of an adverse birth event is not known, ignoring them does not mitigate their effects.

Study Limitations. The report documents reduced rates of 2 important perinatal birth outcomes among IHS participants. The unreliability of birth certificate information is well documented in the literature, yet this served as one of the primary data sources for this study. Further evaluation reports will need to further explore the reliability of this information in the IHS community, as well as its impact on the evaluation methodology.

Section IV: Recommendations

The evaluation team made 9 recommendations on project implementation and data collection. They are:
1. Implement a survey to participants that assesses their satisfaction with IHS services at the time of delivery and program termination.
2. Validate the reliability of prenatal care information on birth certificate submitted by major IHS hospitals.
3. Write an action plan to reduce the risk of post neonatal deaths among IHS participants.
4. Develop a method to assign a prenatal risk level that more closely matches a program participant’s likelihood of having an adverse birth event.
5. Measure and specify objectives for rates of retention, smoking, breastfeeding; depression screening and domestic violence screening for IHS participants at 6 and 12-months post partum.
6. Write an action plan to improve post-partum retention.
7. Develop a plan to better identify measures that deal with assessment of infant medical home and immunization at 1 year.
8. Measure and specify objectives for the percentage of heath education encounters that are with African American community participants (not program participants).
9. Review and revise the activities and strategies on the project’s work implementation plan.

In addition to program recommendations, the evaluation team decided that future evaluation reports should address the following questions:

1. Does the intensity of prenatal care case management services affect birth outcomes?
2. Do different case management models affect birth outcomes?
3. Do the provision of health education and unmet health education needs affect birth outcomes?
4. Do clients who terminate IHS services shortly after delivery differ than clients who remain in the program for 6 or 12 months after delivery?
5. What is the effect of splitting several categorized social risk factors (maternal age, maternal race, and parity) on efforts to reduce bias in risk prevalence?

Section V: Impact

Since this evaluation report was released at the time of this summary, it is not possible to assess the impact of these recommendations. Most, if not all, of the recommendations have not yet been implemented.

Section VI: Publications

At this time there have been no professional, or peer reviewed publications based on this evaluation report. The evaluation report will be shared with IHS subcontractors and the Indianapolis Healthy Babies consortium.
VII. FETAL AND INFANT MORTALITY REVIEW (FIMR)

The Marion County Health Department and the Consortium began a Fetal Infant Mortality Review (FIMR) process in 1995. As part of this process, all available records on each Marion county fetal and infant death between June 1, 1995 and July 30, 1996 were reviewed. A total of 209 cases were examined and the review process was completed in 1997. The cases were compared to babies born to Marion County residents that did not die during the FIMR study period. The results were published in a report dated February 1999 which described lessons learned and recommendations.

From 2002-2004 the FIMR Coordinator focused on recruiting area hospitals to participate. During this time a limited number of cases were reviewed. A new FIMR Coordinator/Abstractor/Medical Reviewer was hired in June 2004 and the Coordinator attended the NFIMR conference in August 2004. A state FIMR grant allowed for the part-time assistance of a FIMR epidemiologist. Chart abstraction began in earnest in the fall of 2004. A total of 39 abstractions were performed and 7 mother interviews were conducted. A Community Review Team approach was used that is consistent with the National FIMR initiative with the Case Review Team involving all disciplines and hospital systems. All hospitals in Marion County with births were included. The Case Review Team included 22 members who met monthly to review cases. The Indianapolis Healthy Babies Consortium–FIMR Program is currently involved in establishing a Community Action Team. The Indianapolis Healthy Babies Consortium and the Perinatal Periods of Risk (PPOR) committee assisted in plans for implementing recommendations.

Reconstituting the FIMR process was a major accomplishment for IHS, the Indianapolis Healthy Babies Consortium and Marion County. There was great enthusiasm for the effort. Recommendations have been made based on monthly meetings of the Community Review Team. A total of 27 recommendations have come out of these monthly reviews. Some recommendations included the following.

1. Education of employers regarding pregnancy employee needs. Develop pamphlets and brochures to give to employers. Advertise pregnancy friendly employers.
2. Provide information on preterm labor signs and symptoms and fetal kick counts in clinical areas of facilities that care for pregnant women.
3. Make prenatal care coordination the standard of care for all pregnancies.
4. Bereavement training for public health nurses and/or social workers and other community home visitors.
5. Develop an on-line bereavement support group.
6. Develop risk assessment tools to be used by all providers.
7. Appropriate follow-up for those who experience a loss who fail appointments for postpartum care.

All recommendations made by the Case Review Team are to be submitted to the Community Action Team to be prioritized for action. The FIMR program offered an ongoing quality improvement program for Marion County’s Maternal Child Health Program. The FIMR Nurse Coordinator and contracted abstractors were funded by the Marion County Health Department. During the 2004 budget year IHS assisted with
funding the contracted abstractors. The FIMR Epidemiologist was funded by a Title V Maternal and Child Health Gap Grant.

VIII. PRODUCTS
For the most part, IHS utilized existing materials instead of developing new ones. Some health education materials were provided by partner and subcontracting organizations. Many materials were provided free of charge. Other educational materials were purchased by IHS. Therefore, the products developed by IHS were primarily for program promotion, core service implementation, or training purposes. Products developed and submitted with this report include the following:

Program Promotion
Indianapolis Healthy Start Informational Brochure (2002)
Indianapolis Healthy Start Informational Flyer* (2003-2005)

Health Education
Indianapolis Healthy Start 18-Month Calendar* (2003-2005)
The Communicator Newsletter* (Summer 2004) (Summer 2005)

Surveys
Indianapolis Healthy Start Domestic Violence Client Satisfaction Survey* (2002-2005)
Indianapolis Healthy Start Case Management Client Satisfaction Survey* (2002-2005)
Indianapolis Healthy Start Health Education Client Satisfaction Survey* (2002-2005)

Conference Programs
Indianapolis Healthy Start Perinatal Substance Abuse Conference Program (2001)
Healthy Babies Consumer Celebration Program (2003)
Charting Your Journey: The Road to Healthy Families and Community Program (2004)

Presentations (PowerPoint)
IHS Program Presentation* (2002-2005)
IHS AMCHP ALL Presentation* (2005)
The Problem for BFA* (Baby First Advocates) (2005)
The Solution for BFA* (Baby First Advocates) (2005)

Training

Annual Evaluations
Annual Evaluation July 2001-May 2002*
Annual Evaluation January-December 2002*
Annual Evaluation January-December 2003*
Annual Evaluation January 2004 to May 2005*
* Indicates an electronic version is available on the disc submitted with this report.
IX. PROJECT DATA