

**South Carolina Office of Rural Health
Low Country Healthy Start
Impact Report
June 1, 2001 through May 31, 2005**

I. Overview of Racial and Ethnic Disparity Focused on by Project

The perinatal needs assessment for the Low Country Healthy Start (LCHS) program completed in 2001 documented that people living in the LCHS rural service area were predominately African American. For the entire South Carolina population, however, the African American population was the minority population. Latino and other ethnic groups had begun to settle in rural South Carolina but not significantly in the service area.

The LCHS service area is comprised of four rural counties, Allendale, Bamberg, Hampton and Orangeburg. In 2001, all service area communities were plagued with high poverty, low educational attainment of citizens and significant unemployment rates. Few industries were available to accommodate the eligible workforce. Allendale County was designated as an Enterprise Community and the city of Denmark, which is in Bamberg County and the home of LCHS, was designated as a Champion Community. The U.S. Census Bureau had not designated any of the four counties as metropolitan.

The following chart depicts information regarding women of childbearing age in the LCHS service area and in South Carolina. The percent of African American females in the service area was much higher than the percent of African American women in the state as a whole. When applying for funding through HRSA in 2001, applicants were asked to report data for years 1996 through 1998.

Population and Race for Women Aged 10 to 44 in the Low Country Service Area and South Carolina

Geographic Area	White	Nonwhite, Black or African American	Percent Nonwhite, Black or African American	Total
Allendale	670	2020	75%	2690
Bamberg	1320	3160	71%	4480
Hampton	1870	3060	62%	4930
Orangeburg	7750	15840	67%	23590
Service Area	11,610	24,080	67%	35690
South Carolina	658,370	356790	35%	1,015,160

Data Source: SC Office of Research and Statistics, Bureau of Census Estimates as of July 1999

As shown above, the population of women of childbearing age (ages 10 to 44) in the service area was (and remains) predominately African American at 67%. This is in contrast with the state as a whole since the state percent of African American women of childbearing age was 35%.

The total population by race for the service area and South Carolina is shown in the chart below. As shown, the service area for the Low Country was 60% African American or Other, while SC as a whole had a population of 31% African American or Other.

Total Population and Race in the Low Country Service Area and South Carolina

Geographic Area	White	Nonwhite, Black or African American	Percent Nonwhite, Black or African American	Total
Allendale	3,580	7,740	68%	11,320
Bamberg	6,230	10,060	62%	16,290
Hampton	8,700	10,410	54%	19,110
Orangeburg	35,720	51,800	59%	87,520
Service Area	54,230	80,010	60%	134,240
South Carolina	2,638,590	1,202,150	31%	3,885,740

Data Source: SC Office of Research and Statistics, Bureau of Census Estimates as of July 1999

Income and Poverty: Service area poverty rates, as reported below, were astounding when the needs assessment was completed in 2001, especially the disparity between White people and African American people. Research and data analysis continue to document that poverty and income are major determinants of health outcomes. It is further documented, that poverty is a major risk factor contributing to poor health outcomes in both women and infants. Poverty is a fundamental cause of poor health and is linked with poor access to health care, poor nutritional status and inadequate and substandard housing. (The literature, specifically the Spellman University and Agnes Scott College study, documented that even when income or poverty is not a factor, African American women still have poorer pregnancy outcomes and too many premature and preterm infants.)

The chart below highlighting poverty for African American women clearly demonstrates that the Low Country Healthy Start service area was the right place to invest and the right place to work to improve perinatal health. With improved health status and improved understanding of how to navigate and effectively use health services, women will be more able to complete educational programs, earn higher incomes and enjoy an improved quality of life.

Percent of Persons Below 100% of Federal Poverty Level by Race and Hispanic Origin

Geographic Area	% White and Number (n)	% Black or African American and Number (n)	% Other Races and Number (n)	% Hispanic Origin and Number (n)
Allendale	12.5 (415)	46.7 (3,400)	22.7 (22)	20.2 (25)
Bamberg	16.6 (1,062)	35.9 (3,476)	47.4 (9)	54.3 (44)
Hampton	14.0 (1,153)	39.2 (3,835)	25.0 (1)	60.9 (28)
Orangeburg	10.0 (3,404)	36.1 (16,652)	18.5 (115)	24.2 (53)
Service Area	11.0 (6,034)	35.0 (80,010)		
South Carolina	8.5	31.4	15.1	15.6

Data Source: SC Office of Research and Statistics, US Bureau of Census, 1990 Summary Tape File 3A. Chart Notes: 1: Other Races include American Indian, Eskimo & Aluet; Asian or Pacific Islanders; and other races. 2: Service Area populations by race totals were calculated from data provided. Black or African American Service Area calculations include Other Races and Hispanic Origin.

Percent of Females, by Race, aged 18 to 44, Below Poverty

Geographic Area	% White Females 18-24	% White Females 25 - 44	% Black or African American Females 18-24	% Black or African American Females 25 - 44
Allendale	25.3	8.2	49.3	46.3
Bamberg	13.5	16.0	39.3	35.6
Hampton	11.5	14.4	41.6	35.2
Orangeburg	11.3	9.2	38.6	31.3
South Carolina	15.0	N/A	35.0	N/A

Data Source: SC Office of Research and Statistics, US Bureau of Census, 1990 Summary Tape STF4. Note: The age breakouts for the state of South Carolina are not available (N/A) for Females 25-44.

Too many schools in the Low Country service area were and continue to be marginal, at best, depriving children of the education and skills needed to be successful in their lives. In Allendale County, in July 1999, the State Board of Education declared Allendale County schools to be in a state of emergency and the State assumed control of the Allendale County School District. This unprecedented action was due to repeated and sustained poor performance of the Allendale County system, the teachers and students.

Education: Educational attainment is an important indicator of income. Income is an important variable in quality of life. The chart below shows educational attainment for women in LCHS counties, according to the 1990 Census. Not finishing high school (or not earning a GED) is closely related to problems such as illiteracy, low income, unemployment, and other negative factors. In the Low Country service area, a high percentage of women did not receive a high school diploma or GED and a small percentage earned a graduate or professional degree.

Educational Attainment (shown as a percent of Age, Race, Sex Group)

Geographic Area	% White Females 18-24	% White Females 25 - 34	% Black or African American Females 18-24	% Black or African American Females 25 - 34
Allendale - Less than 9 th Grade	0	0	.5	7.3
Allendale - HS Diploma or GED	30.1	29.9	44.2	50.1
Allendale - Graduate or Professional Degree	0	9.8	.5	0
Bamberg - Less than 9 th Grade	2.0	5.0	2.2	2.5
Bamberg - HS Diploma or GED	33.8	29.5	40.7	32.4
Bamberg - Graduate or Professional Degree	0	6.5	0	0

Geographic Area	% White Females 18-24	% White Females 25 - 34	% Black or African American Females 18-24	% Black or African American Females 25 - 34
Hampton - Less than 9 th Grade	0	.9	4.7	.9
Hampton - HS Diploma or GED	40.6	47.0	29.6	41.6
Hampton- Graduate or Professional Degree	0	0	3.3	2.6
Orangeburg - Less than 9 th Grade	1.2	3.0	2.3	2.2
Orangeburg - HS Diploma or GED	35.1	32.8	28.8	40.9
Orangeburg- Graduate or Professional Degree	.9	4.8	.1	4.3

Data Source: SC Office of Research and Statistics, US Bureau of Census, 1990 Summary Tape STF4. Note: Professional degrees include law, medical, etc.

In the service area of LCHS, employment was (and still remains) primarily marginal, with women generally earning low wages. Economies in these four counties are not diverse. Many women work in the service industry. Industry jobs usually translate to low wages, long hours and scant benefits. In Allendale and Hampton Counties, there were very few jobs for unskilled workers causing many women to have to leave the county to work in the hospitality and retirement community industry, and other service work on Hilton Head Island and other coastal vacation spots for the wealthy. The trip and travel time is grueling and the wages low. From Hampton to Hilton Head is 65 miles, from Allendale, 83 miles. Generally, the trip began at a central pick-up point in Allendale County at 4:30 to 5:00 AM. The bus proceeds on to Hampton County to pick up workers. The bus returned people around 7:30 PM. Workers had an approximate round trip commute time of three to four hours. After working and commuting to work, these low wage female workers had little time for rest, to care for and interact with their infants and children, get food in the house, do laundry and other household chores, as well as make and keep health care appointments. These jobs are all that are available and yet, the hardship to the family in arranging childcare and living on these very low wages is defeating and demoralizing and often the logistics are just impossible. Resort area management companies provide some transportation for these jobs since low wage earners are not available locally to meet the resort demand.

The information in the chart below is also from the 1990 Census. Since the 1990 Census was completed a decade and a half ago, the Low Country portion of South Carolina has progressed little in job creation. The national economic boom of the mid to late 1990s did not positively affect these four rural counties. The old adage of the poor get poorer, instead, prevailed.

Percent of Not Employed Females, by Age and Race

Area	% White Females 16-19 Not Employed	% White Females 20-24 Not Employed	% White Females 25-29 Not Employed	% White Females 30-34 Not Employed	% AA & Other Females 16-19 Not Employed	% AA & Other Females 20-24 Not Employed	% AA & Other Females 25-29 Not Employed	% AA & Other Females 30-34 Not Employed
Allendale	72.1	41.2	37.6	9.2	86.6	58.5	41.5	52.2
Bamberg	69.1	36.4	37.4	37.7	80.3	66.7	39.8	45.3
Hampton	70.8	31.8	43.8	27.7	81.8	55.6	35.6	36.6
Orangeburg	60.9	26.3	27.0	25.8	79.1	51.8	37.5	29.0
South Carolina	N/A	30.0	27.0	27.0	N/A	42.0	32.0	29.0

Data Source: SC Office of Research and Statistics, US Bureau of Census, 1990 Summary Tape STF4. Note: AA & other means African American and other races; N/A means not available.

Manufacturing is a major employer in the service area. In the rural south and in the LCHS service area in particular, people who work in manufacturing jobs are generally not union members. Benefit packages are scant. Manufacturing plants do not operate full time all year long and many were on the verge of closing in 2001, and several have closed since that time. State and local government are major employers, as well as health services including hospitals, doctor's offices, federally qualified health centers and rural health clinics. LCHS has also provided some residents with work. (County offices, including public health departments, are now unable to fill most positions as they become vacant which is exacerbating efforts in every part of the perinatal health system.)

Perinatal Health Status: Similar to the high incidence of poverty, low educational attainment and reliance on public programs, the perinatal health status was deplorable and resources were strained in the Low Country service area when data were compiled in 2001.

A close evaluation of statistics related to infant mortality, low birth weight babies, births to teen moms and adequacy of prenatal care clearly depicted the significant problems in need of intervention to improve the perinatal status of the targeted area. Perinatal health status data follows in a series of charts.

The South Carolina Department of Health and Environmental Control, Division of Biostatistics, was the source for data regarding live births, infant deaths, prenatal care initiation timing and adequacy, birth weights, as well as the information presented on teen births.

Live Births - 1996 to 1998

	Total	White	% White	Black & Other	% Black & Other
Allendale	509	96	19%	413	81%
Bamberg	640	223	35%	417	65%
Hampton	880	327	37%	553	63%
Orangeburg	3653	1244	34%	2409	66%
Service Area	5682	1890	33%	3792	67%
South Carolina	157,143	99,385	63%	57,758	37%

Infant Mortality: According to the 2000 Title V Needs Assessment submitted to the Maternal and Child Health Bureau (MCHB) in HRSA, South Carolina experienced significant improvement in infant mortality in the early to mid-1990s. From a high of 11.6 deaths per 1,000 live births in 1990, the total infant mortality rate reached its lowest point in history in 1996; the rate of 8.3 represented a 29% decrease in that six-year span. In 1997, the total rate increased to 9.5 and remained at that level in 1998 causing an upward shift in the mortality trend. The 1999 rate for the state is back to double digits with the total rate an alarming 10.3 per 1,000 live births. The white rate was 6.8 and the Black and Other rate was 16.4 per 1,000 live births.

Infant, neonatal and postneonatal rate for the combined years of 1996 through 1998 showed the following:

Infant Mortality - 1996 to 1998

	Deaths			Births			Infant Mortality Rate		
	Black & Other	White	Total	Black & Other	White	Total	Black & Other	White	Total
Allendale	2	0	2	413	96	509	4.8	0.0	3.9
Bamberg	5	0	5	417	223	640	12.0	0.0	7.8
Hampton	4	2	6	553	327	880	7.2	6.1	6.8
Orangeburg	34	11	45	2408	1244	3652	14.1	8.8	12.3
Service Area	45	13	58	3,791	1,890	5,681	11.9	6.9	10.2
South Carolina	839	590	1,429	55,239	99,385	157,143	15.2	5.9	9.1

Note that for the combined years of 1996 through 1998 for the LCHS service area, the “Black and Other” infant mortality rate was 11.9 per 1,000 live births. This rate qualified LCHS to make the 2001 application for funds from the Eliminating Disparities in Perinatal Health competition.

Neonatal and Postneonatal - 1996 – 1998

	Neonatal Mortality			Postneonatal Mortality		
	Total	White	Black & Other	Total	White	Black & Other
Allendale	2.0	0.0	2.4	2.0	0.0	2.4
Bamberg	4.7	0.0	7.3	3.1	0.0	4.8
Hampton	3.4	3.1	3.7	3.4	3.1	3.7
Orangeburg	9.0	6.4	10.5	3.3	2.4	3.4
South Carolina	6.3	3.9	10.7	2.8	2.0	4.1

According to the state MCH Needs Assessment, most of the problem in achieving reductions in infant mortality was attributed to the lack of improvement in neonatal mortality. The Black and Other rate remained virtually unchanged through the first half of the 1990’s, varying slightly around an average of 10.3 deaths per 1,000 live births. By 1998 the rate increased to 11.4 for the state. The state three-year rate for 1996-1998 was little better at 10.7 per 1,000 live births. In contrast, the white neonatal mortality rate improved over the decade and South Carolina was successful in attaining the Year 2000 objective of 4.5 neonatal deaths for white infants. Reducing racial disparities in neonatal deaths was the key to reducing the statewide, and LCHS service area

rate. In 1990 for South Carolina as a whole, black and other infants had 2.0 times the risk of death as white infants, but by 1998, this risk increased to 2.9.

The State MCH Needs Assessment analysis clarified that with respect to underlying causes of neonatal deaths, racial differences provide strong evidence of where to focus prevention efforts. The LCHS plan described in the 2001 proposal was aligned well with the analysis and ideas presented in the MCH Needs Assessment. The MCH Needs Assessment clarified that deaths associated with adverse maternal conditions (e.g., maternal complications of pregnancy, pre-existing maternal health conditions, complications of pregnancy, labor and delivery) increased significantly for black and other infants, but did not for white infants. In addition, increased deaths associated with congenital anomalies, though relatively small in number even for the entire state, were noteworthy among black and other infants for the period 1995 through 1998. Deaths associated with very low birth weight and prematurity showed clear racial differences. For the state as a whole, in 1990, black and other infants were 2.7 times more likely than white infants to die from conditions associated with very low birth weight and prematurity; by 1998, this black/white ratio had increased to 3.4. (From the SC MCH Title V Block Grant, Needs Assessment, 2000, MCHB, HRSA.)

Postneonatal mortality had improved in the state. Much of the improvement, according to MCH officials, could be attributed to significant reductions in deaths due to Sudden Infant Death Syndrome (SIDS). The declining mortality rate was most pronounced on a statewide basis for black and other infants. This reduction coincides with the public health “Back to Sleep” educational initiative in which mothers were advised that putting infants to sleep on their backs had been shown to reduce the risk of SIDS. (From the SC MCH Title V Block Grant, Needs Assessment, 2000, MCHB, HRSA.)

Prenatal Care: Prevention of poor birth outcomes including preterm very low weight births are linked to improved preconception health status and early, risk appropriate prenatal care. According to MCH state officials, South Carolina was making progress toward the Year 2000 goal of increasing to at least 90% the proportion of all pregnant women who receive prenatal care in the first trimester. In 1998, 82.6% of all new mothers received prenatal care in the first trimester. In that year, 86% of all white mothers, 73.8% black, and others mothers had early care. The LCHS service area experience is provided in the following tables. These percentages fall short of the Year 2000 target of 90%, but the white rate is close and the rate for black mothers improved by 29% from 1992 to 1998.

LCHS service area was worse than the state percent in terms of Black and Other women receiving prenatal care in the first trimester, with the service area reported 66.48% and the state at 70.9% for Black and Other women. Of major concern to LCHS was the fact that 40% of Black and Other women got less than adequate prenatal care as measured by the Kessner Index.

Percent Live Births Entering Prenatal Care in the First Trimester, 1996-1998

	Total	% Total	White	% White	Black & Other	% Black & Other
Allendale	509	59%	96	86%	411	53 %
Bamberg	640	78%	223	85%	413	74%
Hampton	880	67%	327	82%	547	59%

	Total	% Total	White	% White	Black & Other	% Black & Other
Orangeburg	3,653	75%	1,244	88%	2,382	69%
Service Area	5,682	73%	1,890	86 %	3,753	66%
South Carolina	157,143	79%	99,385	86%	55,226	71%

Women with Less Than Adequate Prenatal Care, 1996-1998 using Kessner Index

	Total	% Total	White	% White	Black & Other	% Black & Other
Allendale	269	53%	24	25%	413	59%
Bamberg	168	26%	44	20%	417	30%
Hampton	378	43%	85	26%	547	54%
Orangeburg	1,083	30%	222	18%	2,408	36%
Service Area	1,898	33%	375	20%	3,791	40%
South Carolina	42,436	27 %	20,139	20%	57,737	39%

Adolescent pregnancy rates below include live births, fetal deaths and pregnancy terminations. Although reporting on pregnancy termination is less complete than for live births and fetal deaths, this measure provided a useful index of reproduction health among adolescents. On a statewide basis, the pregnancy rates for adolescents aged 15 to 17, had decreased through the decade of the 1990s. For the state, the 1998 total pregnancy rate was 48.5 and represented SC meeting the Year 2000 objective of no more than 50 per 1,000 adolescent females of that age group. The LCHS service area did not meet that objective for 1996-1998 for the total or for Black and Other adolescents, nor did the state.

Teen Pregnancy Rates for 15 – 17 Year Olds, 1996-1998

	Total		White		Black & Other	
	Rate	Number of Pregnancies	Rate	Number of Pregnancies	Rate	Number of Pregnancies
Allendale	88.2	67	22.2	4	110.5	63
Bamberg	43.0	68	31.4	11	46.3	57
Hampton	52.1	73	65.2	30	46.7	43
Orangeburg	49.4	353	48.1	88	49.3	263
Service Area	51.5	561	47.2	133	52.9	426
South Carolina	51.2	12,593	38.6	5,772	72.2	6,814

Low Birth Weight and Very Low Birth Weight: The overall proportion of infants born at low and very low birth weights, regardless of survival outcomes, was another measure of infant health status. South Carolina, overall, according to the MCH Needs Assessment had experienced a slightly increasing trend in low weight birth rates over the past several years. In 1992, 9.0% of all live births weighed less than 2500 grams and by 1998, the percentage had increased to 9.6%. The increasing trend was similar for singleton live births, with 7.8% born below the low birth weight criterion in 1992 and 8.0% in 1998. The Year 2000 Objective was for an overall low birth weight target of no more than 5% of live births. SC was not close to meeting this goal. Reduction of racial disparities in low birth weight represented a clear need; the Black and Other rate had remained twice that of the white rate consistently through the 1990s.

The very low birth weight trend paralleled the one for low weight births. In 1992, 1.8% of all live births and 1.5% of all live singleton births weighed less than 1500 grams at birth. By 1998, 1.8% of all live births and 1.6% of all live singleton births were born in this weight category. Although SC was close to attaining the Year 2000 Objective of no more than 1% of infants born at very low weights, the state needed to make major improvements to reach its goal. Reducing racial disparities in very low birth weight will contribute substantially to this end. The rate for Black and Other infants had consistently been 2.5 times that of the white rate through the 1990s, and had shown a slight tendency toward an even greater disparity in 1997 and 1998.

According to the 2000 MCH Needs Assessment, of importance was the increasing proportion of live born infants weighing less than 500 grams. Because less than 1% of infants born in this extremely low weight range survive the early neonatal period, such births were seen as essentially non-viable. This increasing proportion of extremely low weight births, seen nationwide as well as in South Carolina, according to state MCH officials represented a shift in physicians' perception of viability resulting from increasingly sophisticated technologies for providing life support to the most fragile of all infants.

Percent Live Births Who Were LBW (<2500 Grams) and VLBW (<1500 Grams), 1996-1998

	Total		White		Black & Other	
	LBW	VLBW	LBW	VLBW	LBW	VLBW
Allendale	11.8%	2.95%	8.33%	1.04%	12.65%	3.41%
Bamberg	9.8%	2.19%	6.28%	1.79%	11.86%	2.42%
Hampton	9.4%	2.16%	7.34%	2.75%	10.42%	1.83%
Orangeburg	11.3%	2.60%	6.67%	1.05%	13.73%	3.44%
Service Area	10.9%	2.52%	6.83%	1.43%	12.92%	3.09%
South Carolina	9.3%	1.91%	6.96%	1.23%	13.65%	3.19%

According to state MCH officials and rural health leaders, the consensus was that the maldistribution of perinatal providers in rural areas was a significant problem that required action. There was a concentration of obstetrical providers in urban areas leaving shortages in rural places. This provider maldistribution problem was further exacerbated by a large segment of the childbearing population without adequate transportation and thus less likely to receive the risk appropriate care needed, especially for high risk women. This was particularly true in the LCHS service area where only Orangeburg County had obstetricians living and working in the county. In Hampton County, obstetricians periodically provide prenatal care in county with women transferred out of county to deliver and for the last weeks of prenatal care. This pattern was never consistent, however. The low risk obstetrical providers, family practitioners and certified nurse-midwives provided adequate low risk care but the problem of high risk prenatal care persisted especially given the problems with transportation to the high risk perinatal center in Columbia or Charleston.

The preponderance of data as shown above provides clear documentation of why African Americans were the focus of the Low Country Healthy Start program. Caucasian and Latina women, when meeting program eligibility criteria, were enrolled in the program.

II. Project Implementation

Outreach and Client Recruitment:

The Low Country service area women of child bearing age, as noted above, is primarily African American. Communities in the four county service areas are plagued with high poverty rates, drug infestation, illiteracy, and scant employment opportunities. Research has documented that poverty and income are major factor in health outcome for both women and infants. Poverty in these communities was a significant factor in accessing all types of health care, regardless of age.

LCHS's approach to implementing core services was determined by focusing on reducing the perinatal health disparities experienced by African American women and their infants. African American, American Indian, and Puerto Rican infants have higher death rates than white infants. In 2000, the black-to-white ratio in infant mortality was 2.5 (up from 2.4 in 1998). This widening disparity between black and white infants is a trend that has persisted over the last two decades. (Source: National Center for Health Statistics, 2002.)

Low Country Healthy Start has provided a critically important and necessary service by helping African American women understand how to improve their health status, as well as how to access appropriate health care and social services. The service delivery system was (and still is) fragmented, had limited resources and was not user-friendly or sensitive to consumer needs. Perinatal providers rely on LCHS staff to help bridge the gap in services and cultural competency. African American women were more prone to becoming frustrated and not follow through with health care appointments and clinician instructions. Healthy Start has been instrumental in educating African American women on health issues and providing support in the form of advocacy, transportation, occasional child care assistance and other services to alleviate barriers that limit access to improve the health of pregnant and postpartum women. Healthy Start played an important part in bringing community leaders together to understand how perinatal issues affect the quality of life for all and highlighted that infant mortality was a problem that required a community response for improvement to take hold.

The Outreach Workers in the LCHS service area were hired to encourage African American women to obtain prenatal care beginning in their first trimester and to retain African American families within a system of care through case management and service coordination. Some African American women entered prenatal care in the first trimester through strategically planned outreach efforts that focused on identifying women early and connecting them to a perinatal system of care. Outreach workers canvassed traditional gathering places to reach at-risk women such as laundromats, beauty salons, shopping centers and grocery stores as well as participated in health fairs and festivals, to contact women less likely to seek early prenatal care.

In Year 3, for example, 81% of LCHS consumers entered prenatal care in their first trimester. In Year 3 the Perinatal Outreach Workers recruited 81 prenats into the Low Country Healthy Start Program and provided 806 recruiting contacts. The Perinatal Outreach Workers provided 207 door-to-door canvassing activities.

Due to lack of full funding in Year 1, only three Perinatal Outreach Workers were hired instead of the seven planned. At the Hampton County Health Department, one Perinatal Outreach Worker

recruited women for prenatal care during health department pregnancy testing days. At the Low Country Health Care System, Inc. (a FQHC), a Perinatal Outreach Worker worked internally with the certified nurse midwife and provided follow-up when consumers did not return for prenatal and postpartum appointments.

LCHS Perinatal Outreach Workers used geo-coded maps to try to recruit women in the first trimester. In Year 1, 103 prenatals were recruited into the LCHS program, of which 82.5% were in their first trimester. The Perinatal Outreach Workers in Year 1 made contact with 300 pregnant women. A Resource Directory, developed by the outreach workers, was used as a reference to assist consumers in accessing appropriate health care and social services. The directory listed information such as names and phone numbers of prenatal and pediatric providers, day care facilities, hours of operation and type of payment source, along with listing pertinent information about each county health department site and each FQHC. In Year 1, the Perinatal Outreach Workers in the first six months had referred 40 pregnant women to obstetric providers.

In Year 3, there were two Perinatal Outreach Workers vacancies, one in Bamberg and one in Orangeburg County. Recruiting and hiring outreach workers in Year 3 was a challenge. It took three months to hire workers and an additional month to train. Also due to funding shortage and the case management priorities, LCHS had two Perinatal Outreach Workers to serve four counties. This minimal staff negatively affected the outreach and aggressive case finding strategy. LCHS supplemented the outreach interventions by creatively developing and sponsoring monthly “Outreach Days” utilizing the LCHS van. The Perinatal Outreach Workers used the LCHS van to travel to distant, very rural outlying areas to market LCHS services, recruit women into care and distribute information on the importance of prenatal care, warning signs of depression along with signs and symptoms of preterm labor.

The Perinatal Outreach Workers provided women pregnancy tests if a pregnancy was suspected but not yet verified. If the test was negative the Perinatal Outreach Workers educated the women on the importance of family planning and assisted her in making an appointment at the local health departments.

Weekly the Perinatal Outreach Workers provided door to door canvassing to local apartment complexes, public housing complexes, trailer parks and neighborhoods. The Perinatal Outreach Workers in Year 2 assisted 163 pregnant women with making appointments to a provider.

High risk infants were identified through the three birthing hospitals using a self-reporting and hospital personnel reporting information card that was placed in a *LCHS Mom’s Bag*. The LCHS Mom’s Bags were implemented for the purpose of identifying low birth weight and very low birth weight babies. If a mom delivered a LBW or VLBW baby at a county hospital, the card (developed by the Perinatal Outreach Workers) was completed and sent to LCHS. The LCHS Perinatal Outreach Workers then provided follow up and referred the consumer to appropriate staff. In Year 3, 469 *Mom’s Bags* were given to postpartum women.

In Year 3, staff turnover contributed to Low Country Healthy Start not fully meeting all objectives. For example, one Perinatal Outreach Worker was on extended leave for several months without a replacement, leaving only one outreach worker to provide services. Eventually, this Perinatal

Outreach Worker resigned, and a new outreach worker was hired. In 2004, LCHS lost the only remaining Perinatal Outreach Worker and did not fill the vacancy because the end of the project year was close. A contractual Perinatal Outreach Worker was retained.

LCHS consumers were also negatively affected by one FQHC's inability to retain pediatric and obstetric providers. Turnover at that Center has been a significant problem for years. Because the service area is very rural it is hard to retain providers after they meet a service or loan repayment obligation. Too often some providers did not even meet their obligation and would leave early. Obviously, providers were attracted to larger areas that have more to offer, better call and coverage schedules and an enhanced quality of life. LCHS consumers were impacted by the short-term and frequent provider changes at the FQHC. Consumers complained of seeing a different provider when returning for prenatal care, or other services. Some consumers lost trust in the center. Too often new providers were insensitive to consumers and were not prepared for the deprivation and low education level of the area. Too many perinatal consumers were uncomfortable with the care received and did not return for prenatal care. This led to too many women showing up in the emergency room to deliver.

The steady State budget cuts affected the LCHS services overall because of the shortage of personnel in the local Medicaid offices and county health departments.

These situations described above also contributed to the high turnover rate of the LCHS staff. Too often staff felt helpless to deal with the significant problems of consumers, a lack of support from other local service providers, constant changes in provider offices. LCHS staff expressed being overburdened and overwhelmed because of the great demands of the consumers complicated by providers coming and going with insufficient planning for continuity of care.

Case Management:

Low Country Healthy Start Case Management Core Service was comprised of two disciplines, Perinatal Social Workers (PSW) and Perinatal Resource Coordinators (PRC). LCHS employed masters prepared social workers during every year of the four year grant cycle. This was necessary because of the increasing number of psychosocial issues presented by clients referred by providers and because of provider requests for help because of the inability to provide medical or health care and psychosocial help. The social workers provided comprehensive psychosocial assessments, individual counseling, crisis intervention, postpartum follow up, referral to community resources and support group counseling during pregnancy and two years postpartum. The mental health system in the service area was fragile and completely unresponsive to the needs of poor, African American pregnant women and families, unless they were referred by the legal system or had **severe** mental health problems.

The LCHS Case Management Model consisted of community based services. PSWs were responsible for completing psychosocial assessments through a home visit to a prenatal or postpartum consumer. The PRCs then were responsible for providing education, support and assistance using a curriculum based education series in consumer's homes. The LCHS Program Director with years of experience supervising the Resource Mothers Program at a local county health department and at LCHS modeled the case management program intervention on the

success of home visiting especially in very rural communities. Home visiting helped to solve some of the transportation and child care barriers cited by consumers. The LCHS Program Director is a seasoned social worker who understood the importance of obtaining the “whole picture” by visiting a person in her day-to-day environment.

LCHS hired the PSWs and PRCs in September 2001. All new staff participated in a month of training. New referrals were accepted in October and November 2001. Initially all new staff went out into the community to promote the program and to recruit new consumers into the LCHS program. By November, LCHS began to receive referrals from the local health departments, local providers and through the outreach efforts of staff. During the first year of the LCHS program, PSWs were also responsible for supervising the PRCs and the Perinatal Outreach Workers, as well as providing direct clinical activities, working with a caseload of women and coordinating with providers and other agencies.

LCHS employed Perinatal Resource Coordinators during all years of the grant cycle. PRCs case managed low risk prenatal consumers and low risk infants after delivery and for two postpartum and two infant years. PRCs provided support to their consumers, taught the maternal and infant curriculum, referred consumers to community resources, followed-up on referrals, completed data forms, completed case management notes, provided overall support and encouragement to the consumers, participated in case conferences and participated in the planning and delivery of monthly Consumer Club Meetings.

Multidisciplinary Team Meetings, sponsored and staffed by LCHS, were held with obstetric and pediatric providers in the four counties monthly. Meetings were held to discuss referrals that were made to LCHS, along with medical and social concerns of the LCHS program consumers and team members also presented their concerns and recommendations for follow-up and case management.

Monthly Care Coordination meetings were held with local health department staff to discuss the outcome of referrals that were sent to LCHS and medical concerns of the program consumers.

Monthly Consumer Club meetings were held in all four counties to provide education and an opportunity for positive socialization for both program and community participants. Educational topics included topics like the importance of early and adequate prenatal care, general infant care, family planning options, STDs, postpartum care, relationship issues, domestic violence, signs of depression, as well as others.

Again in Year 2, LCHS experienced significant staff turn over and that distracted from full and successful initiation of the case management program. Paraprofessionals in Allendale and Orangeburg counties were interviewed, hired, oriented and then placed in the field to work. Several stated they found the work too challenging and difficult especially given that they could not offer enough to meet the needs of each consumer. The lack of community and Program resources to truly assist consumers was painful and the work was demanding.

In Year 2, PRCs developed a monthly calendar with dates and times of prenatal appointments so women (and LCHS) could monitor compliance with prenatal care. Also, PRCs were expected to visit consumers at least twice a month at a minimum and more often based individual need. In

addition, each PRC was to provide home visiting support and education sessions to a caseload of 35 women and families and to provide the home visiting prenatal and infant curriculum based education. PRCs were expected to follow and support the family for two postpartum years.

In Year 2, LCHS updated the program's data base to facilitate the data entry person producing a listing or weekly trigger reminders of upcoming appointments. This was designed to help staff keep on track with family planning methods, identifying and updating risk factors, prenatal appointments, and infant and staff referral follow-up. Staff were expected to use the trigger reminders to make calls to follow up with families for infant immunizations, etc.

LCHS staff attempted to develop an incentive awards program to encourage and motivate consumers to keep prenatal, postpartum, infant, well child visits for immunizations and screening. It was important for the PRCs to have some small gift or incentive to offer. Staff invested many hours in developing and implementing an award system that was helpful, not overly burdensome in administration and that could be done with donations as federal funds could not be used.

In Year 2, Multidisciplinary Team meetings were held monthly in Allendale, Bamberg, and Orangeburg counties. Hampton County meetings began in Year 03.

In Year 2, LCHS also began to attend an existing Care Coordination meeting which was held in Allendale County. The LCHS Program Director and staff met with local health department staff in Orangeburg and Bamberg and they agreed that these meeting would eliminate or greatly reduce any duplication of services, would provide a seamless system of care coordination and would help both programs be more useful to consumers.

In Year 1, LCHS staff received training on how to administer the *Ages and Stages Developmental Screening Tool*. This tool was used to determine if the child was having developmental delays. If problems were identified, the infant was referred to Baby Net (South Carolina's early identification program) for further testing and follow up as needed. The staff administered the tool at six month intervals, beginning at 6 months of age through 24 months. The 24 month screening coincided with graduation from the LCHS program.

In Year 3, LCHS added a project period objective to address reducing the LBW and VLBW live births. To address this, Perinatal Outreach Workers were expected to focus their outreach work in targeted areas that were determined by mapping perinatal health outcome adverse outcomes. Geo-coded maps were developed to locate communities where women did not get early or adequate prenatal care and where women lived that delivered LBW and VLBW infants.

In Year 3, LCHS added a project period objective to address pregnant and postpartum women and early identification of a family planning method to delay subsequent pregnancies. PSWs and PRCs were expected to follow women for two postpartum years to assure women received useful, appropriate, desired family planning services. LCHS found that too often if a woman experienced any side effects from the method chosen, she frequently stopped taking (or using) the method before selecting and obtaining another method. LCHS staff worked with consumers and the local health department and gynecological providers to encourage women to return to care, to discuss options, risks and side effects and to chose an another method.

In Year 3, 39 Care Coordination meetings and 45 Multidisciplinary Team Meetings were conducted and staffed by LCHS in the service area. These meetings helped staff obtain information about the consumer's prenatal appointments, postpartum care, family planning method, and helped identify if infections, including STIs, were found and treated.

In Year 3, LCHS exceeded its goal of 296 infants receiving well child visits and 59% of infants were compliant with well child visits per the American Academy of Pediatrics (AAP) schedule. Of the caseload of 407 infants, too many were not seen according to the AAP schedule, but did receive a well child visit.

In Year 3, due to LCHS restructuring, the Program Director named a Deputy Director and promoted two seasoned PRCs to supervisory positions. The Deputy Director supervised the social workers and Bamberg County PRCs. The newly promoted PRC supervised PRCs and Perinatal Outreach Workers in Allendale, Hampton, and Orangeburg Counties.

In Year 4, LCHS continued to provide case management services as outlined in the previous years with one exception. The Perinatal Outreach Worker began to follow women and their infants after the infant turned one year old. This was done as a result of turnover in Allendale/Hampton County so that the PRC could concentrate on providing services to the prenatal population.

In Year 4, LCHS continued to offer services as outlined above for previous project years. No changes in the scope of services were identified.

Regrettably, however, data collection, data entry problems and staff turnover continued. The staff turnover problems created problems with consumer retention. Not unlike the results of frequent turnover of perinatal providers described earlier, LCHS lost some program consumers because they did not choose to be assigned to another PRC after having been introduced to the program by another.

In Year 4, the local health departments discontinued offering Depo Provera to any woman less than 20 years old. Those 20 and over could only receive Depo for 2 years, and then they too would have to select an alternate method of birth control. These changes were made as a result of a *black box* warning issued by the pharmaceutical company that stated prolonged use of Depo Provera could cause bone calcium loss. This change was of concern to consumers as well as LCHS staff. Staff were concerned that Depo not being available to younger women could cause the number of teenage pregnancies to increase in the service area.

Health Education and Training:

LCHS documented that childbirth classes, health education classes and breastfeeding classes were extremely limited in all four counties in the service area. In Orangeburg County, the largest, there were only two childbirth classes available - one offered through The Regional Medical Center (TRMC), a Level II perinatal hospital, for a fee of \$50.00 and the other offered by the local county health department. Given the number of births in Orangeburg County, the two classes offered did

not meet the demand. In Allendale, Bamberg, and Hampton Counties, childbirth classes did not exist and breastfeeding support was minimal.

LCHS hired a Perinatal Health Educator (PHE) to provide classes on smoking cessation and alcohol and drug abuse prevention, as well as to provide breast feeding support to program consumers. The PHE also provided staff trainings on topics such as family planning, sexually transmitted diseases and other topics of interest and importance to the perinatal population. The position also required work in community presentations and educational support.

In Year 2, LCHS entered into a Memorandum of Agreement with TRMC to hire a Nurse Health Educator to follow-up on referrals of postpartum women who delivered low birth weight babies; to provide childbirth classes to LCHS program consumers, to provide breastfeeding support and to provide the staff with on-going training and skill improvements.

The plan was that the LCHS PHE and TRMC Nurse Health Educator were to jointly develop an information campaign to inform consumers of the dangers of FAS and about the impact drug use and smoking have on the unborn child. The campaign was to be in the form of newspaper articles to be written each month and pamphlets produced, distributed and available at relevant sites throughout the service area.

During the four years covered by this Impact Report, LCHS experienced several events that detracted from successful initiation and implementation of the Health Education and Training model and plan as outlined above and as envisioned by the staff. The plan and reality did not match; however, LCHS tried every pragmatic strategy.

LCHS hired a full time Perinatal Health Educator (PHE) to provide smoking cessation classes to women, who reported they were using alcohol or drugs, or both, and to provide community-based breastfeeding support to LCHS consumers both prenatally and post delivery. The PHE was to teach one smoking cessation class per quarter and was scheduled to receive training on an alcohol and drug education program available from the SC Department of Alcohol, Drug, and Other Substances and in turn provide training to the LCHS staff team. The PHE was to make presentations to at least eight community groups and to work with key WIC staff to arrange breastfeeding support to African American women in the service area who desired to breastfeed. The Community Health Educator (CHE) was to assist with annual community baby showers sponsored by LCHS and Pro Hampton County and the Orangeburg Prenatal Mission Project. These two events expected approximately 1,000 families to be reached and would be pivotal events to provide parent education to parents, grandparents and others. The CHE was to distribute a pre and post-test questionnaire to those in attendance.

The LCHS PHE was uncomfortable speaking to groups and resigned in May 2002. The Program Director interviewed many applicants but was unable to find a qualified applicant experienced in health education training to fill the position until August. This PHE resigned after working five months. LCHS was unsuccessful in locating a replacement.

TRMC hired a Nurse Health Educator (NHE) who quit after 10 months pursuing an advanced nursing degree. Much time was invested in the orientation and training of this person and little

was received in terms of services. The second NHE was hired in December 2002 and left in May 2003 to work at the local health department. The third NHE was hired in May 2003 as a full time staff person. In December 2003, the NHE requested to decrease hours to part-time, which was granted and the person remained as a part time NHE until May 2004. In the fourth and final budget year, TRMC's contract was not offered as obviously they too experienced great difficulty locating and retaining a Nurse Health Educator to do the work required.

Due to this serious lack of success in finding and retaining a useful PHE, LCHS contracted work to an experienced local health educator not interested in fulltime employment. This PHE was successful and provided child birth classes, breastfeeding support, training programs for LCHS staff and community participants during the monthly Consumer Club meetings in Orangeburg and Bamberg Counties. This PHE also attended and participated in Multidisciplinary Team Meetings in Orangeburg County.

Despite the difficulties in recruiting and retaining health educators, in Year 2, twenty classes were conducted on topics such as STDs, condom use, self esteem, family planning, pregnancy spacing, and relationship issues.

In Year 3, 78 classes were held on the breastfeeding, car seat safety, childbirth, nutrition, baby care, family planning, pregnancy spacing and labor and delivery. Also during Year 3, the SC Alcohol and Drugs (DAODAS) experienced state budget cuts and a decline in revenue and therefore, were unable to provide training as committed for LCHS and that strategy was shelved.

In Year 4, LCHS decided to use internal resources as much as possible to provide health education. For example, in the fourth year, Perinatal Resource Coordinators, using the curriculum developed by Florida State University (modified by LCHS), provided specific education relevant to general infant care, family planning, prevention, diagnosis and treatment of STDs, breastfeeding, and other topics. LCHS Perinatal Social Workers provided education to the LCHS program consumers about the effects that smoking, alcohol, and drugs have on the unborn child.

During the monthly Consumer Club meetings, program and community participants received education about health related and social topics such as the importance of early and adequate prenatal care, family planning options, women's health, oral health, immunizations, well child visits, general infant health, relationship issues, nutrition, career development, access to health care, domestic violence, labor and delivery and nutritional needs.

Interconceptional Care:

LCHS developed and implemented an interconceptional care strategy because of the great challenges of African American women at risk for unintended pregnancy and poor pregnancy outcomes. There is an insufficient supply of health care providers in the area, as noted over and over. There is poor understanding of how to prevent pregnancy by too many of the service area women, girls and males. Interconceptional health services are even more fragmented than the prenatal and infant health service system. Resources are limited and those available are neither user-friendly nor designed to meet the needs of the African American female population with which LCHS was most concerned.

LCCHS postpartum women enrolled in the program were provided education on the importance of family planning and lengthening of interconceptional periods by the Perinatal Resource Coordinator, Perinatal Social Workers and Perinatal Outreach Workers. Women and infants were followed for two postpartum years until the infant reached the age of two. Postpartum women were followed after delivery two postpartum years to ensure they received useful, appropriate, desired family planning services and educated on the importance of spacing their pregnancies. The infant was provided services to monitor the growth and development of the infant and to ensure the infant received appropriate immunization and well baby visits.

The postpartum and interconceptional consumers received home visits twice a month. During these visits, the focus was on bonding, breastfeeding, postpartum exams, pregnancy spacing, birth control, empowerment, improving self-esteem and career goals.

The approach Low Country Healthy Start used to provide interconceptional care services was implemented by the Perinatal Resource Coordinator, Perinatal Outreach Workers, Perinatal Health Educator and Perinatal Social Worker, through home visits, educational group sessions, outreach education, health fairs, and LCCHS events and, during one-on-one counseling. In addition, the Multidisciplinary Team meetings and Care Coordination meetings often had interconceptional care and planning as major agenda.

The PRCs and PSWs after delivery assisted consumers and families by promoting and teaching positive parenting skills and preventive health care requirements for infants up to two years of age. The PRC provided interconceptional services through bi-weekly home visits, by educating the consumers on the importance of post-partum visits and maintaining a family planning method. Family planning methods were tracked by the worker and entered into the LCCHS data base to help ensure that consumers were consistent with staying on a birth control method, by staff reminding them and discussing family planning frequently. Weekly the PRCs and PSWs were provided with trigger reminders from the LCCHS database to use during home visits to remind the consumer of her next family planning appointment, as well as to remind her about the infant immunization and well baby check up scheduled.

Low Country Healthy Start focused on interconceptional care because of the number of consumers in the service area not receiving or returning for postpartum care, the lack of the consumer's education around family planning, pregnancy spacing and infant's immunization. There was a great need in the communities for home visitors to provide one-on-one prenatal and postpartum education. Women were receiving minimum education from providers whose office visits were very time limited. On too many occasions, provider staff were insensitive to consumer questions, and the level of time required to provide additional education around prenatal and postpartum care was not available from many of the medical providers.

Many times when consumers verbalized her family planning method and how to use it the information was not accurate or the consumer could not remember to record the date of her postpartum and family planning appointments or the woman could not find a method she could agree to use consistently. In order to have more accurate information, LCCHS staff began monitoring and following up with the consumers' monthly to capture dates for postpartum exams,

family planning appointments, infants' immunization and well baby visits. This was done during Multidisciplinary Team and Care Coordination meetings. This allowed the worker to get first hand information from the provider or local Health Department family support nurse. Information was recorded into the LCHS database and monthly trigger reminders were given to the workers in order to remind the consumer of her next scheduled appointments.

In Year 4, 97% (456 of 469) of the Low Country Healthy Start consumers demonstrated that they had postponed subsequent pregnancies successfully. (LCHS Program Data, SC Budget & Control Board.)

LCHS staff did experience some difficulties when HIPAA took effect. Local health departments and provider offices were not as willing to provide consumer information due to misunderstandings on HIPAA requirements, lack of formal agreements and clarity on what information could be shared. When there was doubt, information was not shared.

LCHS, consumers and other providers experienced setbacks when South Carolina state government implemented budget cuts. Medicaid and local health department suffered budget cuts that affected service delivery directly due to lack of provider personnel. Family planning services were restricted through county health departments and were offered only one day a week at local health departments. This was an inconvenience to consumers who are employed. Although consumers generally understood the importance of keeping family planning and other appointments offered through the local health department the costs resulting from missing work in order to go to doctor's appointments, including lost income and the possibility of losing their jobs, were considered too risky. Neither local health departments nor Medicaid offices extended or altered their hours of operation to accommodate working moms.

The difficulty surrounding consumers finding child care for their children was another problem and barrier to keeping their appointments. Due to state budget cuts, there was a reduction of ABC vouchers which is the method South Carolina uses to supplement low income families having child care.

Transportation was another huge and unrelenting barrier for women. In order to use Medicaid non-emergency transportation, women had to leave their homes several hours before their appointment. In the LCHS service area, the Medicaid transportation policy is that the consumer must call three, sometimes five days in advance to schedule a ride for an appointment. Also, they cannot take children with them if the child does not have a medical appointment too.

The Perinatal Outreach Workers during the interconceptional period focused on women returning for their postpartum follow up visit. They held focus group type discussions during the Consumer Club meetings to find out why consumers would not return for postpartum exams.

Outreach workers delivered "Mom's Bags at local birthing hospitals. Included in the Mom's Bags were educational materials on when to return to a provider for postpartum exams, signs and symptoms of depression, the importance of breastfeeding, infant immunization, well baby visits and information on birth control methods. The outreach workers worked closely with the PRCs, PSWs, and local providers to track and locate consumers who failed to follow through with family planning visit, immunization and well baby visits.

Depression Screening and Referral:

In July 2002, LCHS began to screen all prenatal consumers referred to the program for depression. The Edinburgh Postnatal Depression Screening Tool was incorporated into the Risk Screening and Assessment process. The tool was administered by masters prepared social workers. During assessments, a baseline was determined and the woman was re-screened after delivery. Consumers scoring 12 or above on the screening, were referred to a local mental health facility for services even though most public mental health facilities did not have the capacity to provide help

In Year 1, LCHS had not identified tools to assess and identify consumers who were at risk of using alcohol, drugs or experiencing depression. Based on the findings from Year 1, it was determined that many of the consumers were experiencing stress and depression during the perinatal period. Many consumers had problems with relationships, severe financial problems and family conflicts, and many were unable to cope with the stress in their daily lives. LCHS decided to address these concerns, to the extent possible, as research clearly demonstrated that many women delivered prematurely due to multiple stressors and an inability to develop coping strategies to decrease the chance of preterm labor.

The Program Director and Deputy Director attended a HRSA meeting and based on information received the Program Director chose the Edinburgh Postpartum Depression Screening Tool and the 4 P's Plus tool which is a screening tool to identify smoking, alcohol and drugs. A domestic violence tool was already being used by the LCHS social workers.

In Year 1, LCHS employed three masters prepared social workers. The primary role of the Perinatal Social Worker was to complete psychosocial assessments and develop individual service plans with consumers who were in need of social work intervention. Social workers maintained a caseload of 35 consumers with intervention strategies based on risk factors such as inability to cope, unstable living environments, incidence of family domestic violence, child or infant abuse and neglect, substance abuse, and newborns that have special medical needs.

LCHS's protocol was risk-leveled and was adapted from the Healthy Families protocol. Those consumers who did not meet LCHS criteria for PRC curriculum education and support but who needed social work intervention were assisted in accessing appropriate programs in the community based on their individual needs. (Again, LCHS used the curriculum developed by Florida State University and modified and expanded by LCHS in each of the four years of the project.)

In Year 2, as part of LCHS's commitment to assure that all women served received risk appropriate screening for perinatal depression, staff began to screen women. It was projected that 80% (336 of 420) LCHS pregnant and postpartum consumers would be screened for depression and received appropriate referral and case management.

In Year 3, PSWs began to facilitate monthly support groups to address the needs of women suffering from situational depression. Many times consumers refused a mental health referral stating "*I'm not crazy*". The Perinatal Social Workers decided to form a group to help meet the needs of those experiencing stressors. The group was called the "Women's Wellness Support Group".

During initial group meetings, attendees were given the group's purpose and were informed about specific content for each session. Group members were also given the opportunity to devise group rules. To determine the success of the group, a Stress Checklist was given during session one and session six, which was the last session for each group. The Stress Checklist included daily life events and situations that are known to elicit stress. Group members were able to talk about stressors and through sharing, talking and problem solving find ways to cope. Attendees were introduced to positive coping strategies and relaxation techniques they could use.

At the end of the group, members received a certificate of participation and incentives such as a stress ball, stress lotion, and a t-shirt. For those women who did not attend the group, but were identified as needing follow-up, the social workers provided in-home intervention.

Mental health professionals were invited to attend the group sessions to present information about mental health services to consumers in a non-labeled, neutral location. As a result of their participation, LCHS did have a few consumers who agreed to continue counseling through mental health. A total of 27 women participated in the groups that were held in Allendale, Bamberg, and Hampton counties.

Those identified by the LCHS PSW as possibly finding help by attending the group were between the ages of 18 and 26. One of the barriers to the success of the Women's Wellness Group was that this age group tends to be unwilling to make changes in their routines and thus it was difficult to arrange times that were mutually convenient and that met the needs of women who could benefit most from the support group.

By December 31, 2003, 231 out of 312 program consumers were screened for depression. Of the 231, 64 or 28% scored 12 or higher. Of the 64, 13 agreed to a referral to a mental health provider. Only 4 or 31% kept the appointment.

In Year 4, LCHS PSWs continued to screen all women for depression during the initial assessment. Referrals to mental health continued and the Women's Wellness Support Group was started in Orangeburg County. Groups were held weekly for six weeks at two locations in Orangeburg County.

The Women's Support Groups were difficult to maintain. The contractual social worker, hired by LCHS, completed assessments in Allendale and Hampton counties but was unable to facilitate a group in those counties due to her inability to work more hours. This social worker did provide one on one counseling during scheduled home visits.

In Year 4, LCHS PSWs formed collaboration with the Department of Social Services, Young Parenting Program to expand the Women's Wellness Support Group and to provide both program and community consumers with strategies for coping with daily stressors.

In Year 4, LCHS PSWs facilitated 21 support groups to provide program and community participants assistance in developing coping strategies to help alleviate or manage daily stressors. PRCs and PSW distributed literature to address the warning signs of depression.

In the very rural communities LCHS serves, barriers to consumers receiving mental health services are confounding. In all four counties mental health services were very limited. Due to an inadequate number of counselors and high staff turnover and insufficient resources to meet the demand – perinatal consumers were not a high priority for service. After LCHS referred consumers, they sometimes would not get an appointment for 2 to 3 weeks. During this lag time, too often consumers changed their minds or the consumer’s situation changed. Transportation and childcare continue to be barriers to consumers accessing care, including mental health services.

The problem of being labeled and the perception of “being crazy” if a consumer sought help from a mental health provider is a daunting barrier. LCHS was unable to change the negative stigma of the consumers but continued to try.

In calendar year 2005, the LCHS PSWs facilitated 3 support groups which were attended by program and community consumers.

Local Health System Action Plan:

In 2001, the LCHS Program Director, staff and Consortium representatives developed a survey to assess needs of women and the community with regard to perinatal risk indicators. This survey was distributed to members of the Consortium. Upon final responses priorities were established in two areas; first trimester admission and family planning. LCHS also held focus groups, consumer groups, Listening Sessions and forums which led to the development of the LHSAP. In the intervening years, the priority areas were confirmed through discussion at Consortia meetings and through review of data.

Service area data for African American women clearly revealed that improving access to appropriate and adequate prenatal care was critical to improving birth outcomes, as well as for improving the health of pregnant women. The other key indicator that required focus and attention was improving family planning services and increasing inter-pregnancy intervals. Too many pregnant women received care late in the pregnancy which impedes risk appropriate care as well as frustrate the efforts of both the pregnant woman and the perinatal provider to positively impact the infant’s health.

LCHS leaders and the Consortium reviewed other possible key indicators possible for focus in the local health system action plan but decided these two indicators were the right ones to approach for a variety of reasons. One rationale is that these two indicators could be improved locally, which meant that LCHS staff and partners would not require extra support or coordination from state or federal MCH leaders, although a part of the plan included working with state MCH Bureau staff. SC MCH staff agreed with the selection of these two indicators, as did local MCH staff.

Another factor in choosing these two indicators for improvement is that through the work, LCHS would form a closer relationship with perinatal providers in the region. This proved to be a sound decision as perinatal partners as well as LCHS staff and Consortium continued to uncover barriers to early prenatal care and when a problem was identified potential solutions were crafted and implemented.

Working with local perinatal providers and leaders and continuous assessment of the “system” and availability of appointments for women for prenatal care in the first trimester kept the focus on system improvement work in which a win-win situation is possible for pregnant women and for perinatal providers.

Again, the LCHS Local Health System Action Plan is comprised of two major areas of work, which were:

- A. Improving the prenatal care system so that a higher percentage of African American women receive care in the first trimester of pregnancy and thus receive adequate, risk appropriate care throughout the pregnancy. This improved utilization of risk appropriate prenatal care will improve infant birth weights, improve the health of newborns and improve the health of pregnant women by identifying risk early and managing and reducing the risks.
- B. Improving the post-partum and family planning system for African American women who have recently delivered and for those who are at risk for unintended pregnancy. Improvements in pregnancy intent will lead to a lower percentage of unintended pregnancies, increase inter-pregnancy intervals, assist women and families with timing and spacing of childbearing, encourage women to further their education and thus improve income.

Over the four year period, LCHS and its partners, worked together to achieve results as follows:

LCHS Perinatal Health System Action Plan to Improve Prenatal Care Utilization and Pregnancy Intent		
Who	What	By When
Prenatal Care Utilization		
LCHS Program Director	Develop and implement a brief survey with prenatal care providers about attitudes and beliefs regarding first trimester admissions to prenatal care, and about appointment availability	The survey was done in December 2001, as planned, and the results reviewed with the Consortium during the spring 2002 retreat. The plan was to continue to work with providers to emphasize asking women their LMP when they call for a prenatal appointment. This would help facilitate first trimester appointments.
Program Director, Evaluator, MCH Liaison, Consortium members	Using survey information obtained above, as well as local perinatal data, develop and implement educational sessions on risk appropriate prenatal care, content of prenatal care and beginning care in the first trimester.	Sessions were done as planned primarily during Staff and Consortium retreats. This was also frequently a topic in Care Coordination meetings, as well as Multidisciplinary Conferences.
Program Director, Evaluator,	Using Medicaid, Vital	Annually, during the preparation of

LCHS Perinatal Health System Action Plan to Improve Prenatal Care Utilization and Pregnancy Intent

Who	What	By When
MCH Liaison, Consortium members	Records and LCHS program data, document prenatal care trimester of admission improvements and plan additional strategies.	each LCHS proposal as well as during the staff and Consortium retreats, the evaluator provided data updates for the service area, as well as for the LCHS consumers.
Pregnancy Intent		
Program Director, Evaluator, MCH Liaison, Consortium members, Title X State and district public health staff	Document availability of postpartum and family planning providers in the service area, recording time of appointments, usual methods prescribed, payments required and provide feedback to identify system barriers.	<p>The initial assessment was done on schedule. Assessments continued annually with barriers documented and work done to remove barriers identified.</p> <p>System barriers included inadequate public health staffing to make family planning service available five days a week in all counties. Also, primary care providers did not develop adequate systems of recall for women after delivery. LCHS worked on this obvious barrier to help assure women at least keep their first appointment and then follow-up, according to the method chosen. Some success was realized.</p> <p>A major portion of one of the Staff and Consortium retreats was dedicated to finding solutions to this problem.</p>
Program Director, Evaluator, MCH Liaison, Consortium members, Title X State and district public health staff	Review Medicaid, Title X and LCHS program data; client satisfaction surveys to determine what barriers still exist in postpartum care and family planning and develop programmatic, educational and informational programs to address.	This work was done as planned and the many barriers identified were addressed.

Both problems identified as priorities through the Local Health System Action Plan persist. Women did not (and still do not) receive prenatal care early enough and family planning services were not readily available in three of the four counties. In three of the four counties, local health departments offer family planning services one day a week. As state budget cuts continue to impact service delivery, it is anticipated that family planning services will not be expanded as needed and might actually be reduced.

LCHS worked with the perinatal and family practice providers to emphasize the importance of having prenatal appointments available and with those providers and public health to emphasize the importance of culturally acceptable family planning and post-partum care.

Throughout the project period, LCHS focused on the key parts of the LHSAP. All phases of the plan were implemented with various levels of success. Work to improve first trimester admissions to prenatal care and lengthening the interconceptional period was a priority in every project year and was discussed frequently. The LHSAP guided each planning retreat and was a guide for multidisciplinary team meetings.

There were no specific challenges in developing the LHSAP – implementing it, however, was an issue. Guided by state and service area perinatal data and the extent of problems in the service area, Consortium members overwhelmingly agreed that LCHS had to clearly define its focus and plan in order to make real progress in eliminating disparities.

The Consortium provided support to the Program for the overall strategy; however, day-to-day implementation was a challenge year end and year out. Challenges came from many directions. For example, change was required, especially by providers, and change was difficult to start and difficult to retain. The cycle of eliminating barriers is continuous and wearying. For example, LCHS staff would work with one obstetric provider practice to underscore that appointments had to be available for women to receive first trimester care. LCHS staff worked with providers to underscore that the person in the provider's office responsible for making appointments needed to be aware that first trimester admission is important and that they should ask the consumer when her last menstrual period was to determine her priority for receiving an early appointment. Providers would agree to do this but before long – the front office staff left the practice or trained someone new but did not emphasize the necessity of first trimester care being provided and the importance of early appointments.

Another barrier was (and continues) that many obstetric providers require that the woman had Medicaid coverage before the appointment would be scheduled. Efforts to assure the practice that the woman would definitely be eligible for Medicaid and that the visit would be covered – providers have their own experience with the state Medicaid program and some front office staff were simply not willing to extend this visit with the promise of Medicaid coverage. They want to see the actual card or check electronically to verify that the consumer was eligible and covered before an appointment was made.

LCHS used the LHSAP to frame and prioritize program activities, to address the perinatal system, to provide the Consortium with direction and use as a framework for developing collaborative relationships. LCHS also used the LHSAP to plan budget priorities

The primary responsibility of meeting LHSAP goals, or determining why goals are not met, belongs to the LCHS Director, assisted by the work of the staff, subcommittees of the Consortium and the evaluator.

Challenges to achieving the goal of the LHSAP were outlined above and were further negatively impacted by state budget cuts. Key state agencies, the Department of Health and Human Services (Medicaid) and all local health departments have had significant cuts, thereby decreasing personnel and services. The Medicaid program's action caused the application for Medicaid to be more difficult by changing where women had to go to make an application, de-linking Medicaid application from the Department of Social Services and more vigorous work to document fully eligibility.

Budget cuts for the county health departments resulted in fewer appointments for pregnancy testing, which is a key to qualifying for Medicaid status which is key for receiving a prenatal care appointment. A vicious downward spiral of services designed and implemented to facilitate progressive prenatal care resulted from budget cuts.

In the area of increasing the interpregnancy intervals, budget cuts impacted local county health department provision of family planning services, family planning outreach and provision of family planning services by the private medical community. After delivery women could be still eligible for Medicaid through South Carolina's Medicaid waiver that provided access to family planning for two post-partum years, but helping women apply for that and assuring providers that the woman would be eligible for Medicaid for family planning services only was – and is – a problem.

Also during the period covered by this report, the state Bureau of Maternal and Child Health lost leaders who could work effectively with Medicaid staff to problem solve – as problems were identified. Problem solving on behalf of the perinatal population does not seem to be a priority at the state level. LCHS provided local leadership in problem solving but often solutions need back-up and encouragement from a higher level. This type of support declined during the period.

Consortium:

The process of how LCHS recruited and identified its Consortium was established in Phase I of the 1997 project. LCHS wanted to make certain the Consortia members were representative of consumer in all stages of the perinatal continuum. Therefore, all services that the Healthy Start consumers would be eligible for during their pregnancy (prenatal period) and around their pregnancy (post delivery), LCHS worked to ensure those agencies and/or organizations were represented.

Because LCHS's focus was the perinatal state system, it was extremely important that members of the county, local and state government be represented for the purpose of education and advocacy. Last, in keeping with the principles of LCHS as a community-based organization, the program ensured that local community members were active participants of the consortium. Fraternity and sorority members have been supportive of the Healthy Start program and continued to volunteer with community held events as they occurred.

During Phase 2 of the 2001 grant period, state budget cuts affected perinatal services with jobs lost, which in turn meant that often LCHS Consortium members were responsible for accomplishing the workloads of two and three people. Because of this, there were times when

members did not attend meetings. Whenever this occurred, LCHS asked members to send a representative to meetings. Also, periodically throughout the four years LCHS sent information via mail or e-mail asking for input from Consortium members who could not routinely attend face-to-face meetings. This problem may continue during Phase 3 of the 2005 grant period due to ongoing state, local budget cuts and reductions of staff.

An inaugural Consortium meeting was held in September 2001. All four counties met together to select officers and outlined strategies for objectives delineated for the first year of *Eliminating Disparities in Perinatal Care* work. At these meetings, the Consortium members were fully updated on program management activities, data collected, results of the data, monitoring, evaluation results, plans for public education and work to assure continuity of care and services.

LCHS provided the structure and staff to utilize the county-based Consortium for Allendale, Bamberg, Hampton and Orangeburg counties. The Consortiums have conflict of interest policies, as well as internal operating procedures related to meeting attendance, mission, committee structure and the role of Consortium in providing direct service advice to LCHS and other maternal and child health related organizations in the service area.

During each year of this project, LCHS Consortium meetings were held quarterly in each county. Twenty members per county were recruited to participate in the LCHS Consortium, called Advisory Boards. There was also a sub-group of community members representing agencies that could not attend all meetings, but donated their time through staff training, volunteered for events and participated in fundraising activities. For the project period, the composition of the total Consortium is shown below

Members Representing	White	Black	Male	Female
State or local government	15	51	8	58
Consumers – LCHS Clients	5	54	0	59
Community Consumers	1	19	3	17
Community Based Organizations	5	16	2	19
Private Agencies or Organizations	11	5	1	15
Providers contracting with LCHS	3	1	2	2
Other Providers	2	1	0	3
Public Birthing Hospitals	8	1	0	9
Totals	50	148	16	182

Seventy five percent of the Consortium members were African American and 92% were women. This is appropriate given the population with which LCHS focused its work.

Annually, the full Consortium met with LCHS staff and SCORH staff leaders, in a retreat format, to assess progress, ongoing needs, changes needed, educational programs required, allocation of resources, effectiveness of the program and plans for the future.

During quarterly Consortium meetings, the most critical issues to the Board were addressed and determined ways to resolve. One issue was the need to improve first trimester admissions to prenatal care and improve family planning availability and accessibility, as well as other pregnancy prevention efforts to improve spacing and timing of pregnancy.

The Advisory Boards also understood that the services provided by their office were extremely important to the consumers and women of childbearing age. Therefore, during quarterly meetings, a representative from each agency provided a verbal update designed to keep the Consumers informed of services, service eligibility and changes that may have occurred because of state budget cuts.

The Advisory Board and LCHS consumers were kept abreast of trends affecting infant mortality. LCHS invited the Budget and Control Board, Office of Research and Demographics to present perinatal data during meetings. (This group was the project evaluator and data management contractor.) This discussion and presentation allowed opportunities for Consortium members to share county trends and review data. This process has created a positive framework when discussing such topics as infant mortality, low birth weight births, poverty areas, teen pregnancy and/or teen pregnancy prevention. Also, when reporting on Sexually Transmitted Infections (STI), community leaders were (and still are) astounded about the increasing numbers and rates of STIs.

LCHS staff frequently participates on Boards of agencies and organizations, or are members of Advisory Boards, that serve women of childbearing age. For example, LCHS staff participated on the Advisory Boards of local First Steps Initiatives, Early Head Start and Even Start programs. All of these programs are designed to ensure children enter school “ready to learn”.

The Program Director participated in monthly meetings with the SC Perinatal Association and FIMR Board. The deputy director was a member of the Orangeburg Safe Kids Coalition Board and the First Steps Board as well as the FIMR Board in Allendale, Bamberg and Orangeburg Counties. One LCHS supervisor served on the Allendale County First Steps Board and the Allendale Early Literacy Board. One PRC was elected in November 2003 to serve on the Bamberg City Council, and she also served on the Best Chance Network Board. Other staff persons attended community meetings, sorority meetings and assisted with local events. During these meetings, LCHS continuously represented and interacted on issues important to reducing infant mortality and improving the health of women of childbearing age. LCHS staff were known for advocacy on behalf of pregnant and post-partum women and through their active community participation, caused the issue of infant and women’s health to stay on the public policy agenda.

Major strengths that have enhanced consortium development are the insight members and LCHS staff have in to understanding the needs of the communities. Because 98% of the consortium members work and/or volunteer in the community in which they reside, it is not difficult for them to understand that there is a significant gap and disparity regarding health outcomes among the perinatal population and women of childbearing age. Consortium members have said they feel obligated to address this ongoing problem. Not only are the services fragmented but families are having more problems than ever before meeting their economic needs. The Consortium has had the ability to address those issues, make recommendations and pool resources as much as possible

to avoid duplication of services.

A positive strength has been the ability of agencies to retain agency directors and senior staff. As a result of this, LCHS staff did not have to continuously repeat and explain the issues around perinatal health and disparity. As these county positions are good jobs people tend to stay.

Another major barrier was the state budget cuts which have affected attendance at the Consortium meetings. State agencies have been impacted by the effects from staff turnover and changes. Allendale County Hospital (one of the birthing hospitals serving women from two of the LCHS counties) announced they will no longer deliver babies effective June 2005. This is a major blow to the perinatal population and will impact the work of the Consortium in the future.

During the May 2005 Retreat, the Consortium agreed to meet twice per year and would like counties to come together to have meetings. The meetings would be held at the LCHS office, which is centrally located within the service area. Reduced meetings will eliminate staff taking time off from their jobs and also allow them to meet the needs of their agencies and organizations. Most Consortium members have their own Advisory Boards.

Another barrier may be in the form of service delivery, for example the ability to keep up with the ever changing Medicaid system in South Carolina and to effectively keep program consumers informed. The Department of Human Services has drastically cut Family Support Services which is beginning to eliminate the billable services for psychosocial needs of families. This would greatly affect LCHS relationship with the local health departments. For example, Care Coordination meetings would be terminated which are currently used as a means of discussing the psychosocial needs of the consumers.

There were several activities and strategies used to increase community and program participation in the Consortium. The Perinatal Resource Coordinators and Perinatal Resource Social Workers recruited consumers to participate on the Consortium as they visited them in their homes. As a recruitment procedure, consumers were informed of the Consortium, its purpose, meetings dates and why it was important to have their participation. The LCHS staff recruited women from their caseloads to serve based on the consumers' ability, her willingness and her comfort level with being a representative for other women and families. Monthly, county based consumer club meetings were held, each led by an appointed president. The meetings included having consumers discuss system barriers, gaps and areas of interest. During Years 1 through 4, the president of each consumer club gave a report to the full Consortium based on the consumer meetings. The professional consortium provided input and helped craft solutions during those times if needed. The professional consortium members were also scheduled speakers at the consumer club meetings. Consumers often brought their friends and family to the meetings. LCHS staff also used that opportunity to educate family and friends.

Yearly, LCHS sponsored a staff and Consortium retreat and consumers were well represented and developed a comfort level where they easily discussed system problems and barriers. Initially this was not the case, however, with work, mentoring and encouraging consumer input – women grew to being comfortable with their responsibility to assist with providing input and assisting with making recommendations about LCHS decisions. Consumers also assisted in planning strategies,

making improvements and targeting difficult areas. When interventions were discussed, consumers were present to give feedback and recommendations prior to implementation. They knew many of the issues that related to why women did not access prenatal and postpartum care. The consumers served as eyes and ears as a result of their interaction with LCHS staff and their experience in their communities. The consumers were also instrumental in recruiting other women into the Healthy Start program.

Mostly suggestions given by the consumers are those that impacted service delivery. As they voice their suggestions, Consortium members that represented agencies would agree to review their current policies and procedures. In addressing issues voiced by the consumers, LCHS staff, consortia and consumers developed a perinatal survey to determine whether office policies and procedures affected access to care. Providers were surveyed May 2002. Information gathered from the survey was used to educate providers, consumers, the consortia and LCHS about ways to identify and make system changes to improve risk appropriate care.

Consumers advised that they were satisfied with the follow up because they had the opportunity to make their feelings known about particular problems. Often consumer members expressed feelings of empowerment which is what LCHS staff taught and encouraged.

Collaboration and Coordination with State Title V and Other Agencies:

To more effectively meet the needs of the pregnant women and families in the service area, LCHS partnered with the State Title V agency and with other agencies and providers to implement the tasks developed for the Local Health System Action Plan. (For content of Local Health System Action Plan, refer back to that section.) The Consortium, along with many providers and Title V leaders, developed the Local Health Action System Plan to improve prenatal care utilization and pregnancy intent for the women and families living in Allendale, Bamberg, Hampton and Orangeburg communities.

Beginning in 2001, no other comparable case management services were available to perinatal consumers residing in the area. Therefore, to improve the quality of case management services, intensive home visiting was provided to all consumers. During the needs assessment process in preparation for applying to MCHB for resources, LCHS found that social workers were very limited in the service area with some counties having none. Because of the complexity of consumers' problems and situations, the LCHS program found it necessary to have social workers complete psychosocial assessments on all consumers upon enrollment. Unfortunately, LCHS social workers were unable to meet the demands for the entire community. This continues to be a large gap in the service area.

Prior to the submission of the 2001 Healthy Start grant proposal, LCHS held listening sessions with community groups. The purpose of these sessions was to provide data about the state of perinatal health within each county and the service area. After perinatal data, specific for each community was presented, and the mission and work of LCHS was reviewed, the community leaders made observations and provided input on what more could be done to improve perinatal health, especially to reduce the disparity in service and outcomes experienced by African American families. LCHS staff listened. Consistently in every county, community leaders and

perinatal providers mentioned that a major part of the solution was health education for women of childbearing age, people with whom families they communicated (such as mothers, sisters, friends), perinatal providers and policy makers. Therefore, LCHS was compelled to recruit a community health educator that could address those issues raised by the community. It is a major regret that professionally trained health educators have been impossible to retain.

Based on the service area needs assessment, asset mapping and previous work done by LCHS staff, the required core services of outreach and consumer recruitment, case management and health education were offered to all program consumers.

Because the perinatal system was fragmented and not user friendly, outreach workers provided non traditional ways of providing services to consumers. Women often found themselves having to go to multiple agencies to access comprehensive services that created barriers around transportation, child care, family planning, prenatal follow up and other services. Outreach workers had the skills to help women maneuver through the various health care system. The outreach workers served as a resource to local practices to find patients when they did not return for follow up care.

Beginning in 2001, LCHS incorporated several essential components to improve infant mortality reduction and disparity. LCHS had experience with using the model of home visiting from the previously funded Healthy Start program years. Therefore, successful indigenous workers were retained. Those workers continued to provide intensive home based services to educate consumers on maternal and child health issues. LCHS used Florida State University, *Partners for Healthy Babies* as a guide. LCHS found that interacting with families in their home brought about a sense of comfort for the family thereby, putting them at ease to be honest enough to share their needs without being in an intimidating place such as an office. By providing regular home visits, it became easier to build rapport with families.

Outreach Workers who were also called indigenous, provided support to the home visitors because if for example it was difficult to find a consumer, a referral would be given to the outreach worker to locate. Because women who suspected they were pregnant and did not go to a provider were difficult to find, outreach workers walked throughout the community distributing brochures and were available to provide EPT tests purchased by LCHS..

Multidisciplinary Team Meetings and Care Coordination Meetings proved to be valuable for the LCHS program because it allowed both LCHS staff and the providers to work as a team with hopes of consumers having a much better outcome.

Health services such as Childbirth and smoking cessation are obsolete in some parts of the service area; therefore, the need for LCHS to contract with existing health educators was also important.

LCHS staff established, convened and used monthly care coordination meetings with local Title V agencies (health departments) to discuss ongoing strategies for pregnant women, post partum women, infants and families. The purpose of the care coordination meetings was to discuss consumer referrals made to LCHS, compliance with medical appointments and to ensure the goals of the consumers were met. These meetings have assisted LCHS and the health departments in reducing duplication and allowed for information and resource sharing.

LCHS enjoyed strong support from two of the four service area health departments. During LCHS events such as Family Strengthening Conferences, consumer meetings and an Infant Mortality Walk, nurses from the health departments became an integral partner and contributed to committee planning meetings.

Prior to the departure of Sara Balcerek, state Title V Director who retired in December 2004, a re-districting of health departments was done. Ms. Balcerek was instrumental in encouraging local county health department staff to work with LCHS. After her departure, the level of communication from state Title V staff decreased. The LCHS Program Director will contact the new Title V Director soon. He is a pediatrician with managed care experience and some SC public health experience.

During March through May 2005, the state Title V Perinatal Director, Luanne Miles invited the LCHS Program Director to participate in a work group to develop the MCH Title V 2005 Needs Assessment, required for the Title V Block Grant proposal. The sub-group on which LCHS served was titled Women and Infants. The group represented mostly staff from local county health departments but included Healthy Start, Palmetto Health Richland, March of Dimes and Family Connection. The MCH Block Grant requires states to complete a 5-year Assessment. State Title V wanted a representative from Healthy Start to assist with the needs assessment and review the state's performance measures. One of the performance measures the LCHS program director was instrumental in convincing state Title V representatives was to address was the disparity among minorities in perinatal health.

During the time period of this Impact Report, there were two FIMR groups in two of the four counties served by LCHS. The local health departments coordinate the review. The LCHS Deputy Director meets with local health departments to review infant deaths. An identified gap is the inability of the health department to complete Home Evaluation Assessments. The health departments do not have staff to complete the assessments. One social worker who was assigned this duty appears to have a full work load; therefore, home assessments are not done consistently. This gap limits the ability of the group to determine the total needs of the woman and family. Another gap has been the limited number of agencies that are involved. Healthy Start is the only organization that has actively participated.

A formidable gap in services for pregnant and postpartum women and infants in the service area is due, in part to the in-consistent availability of clinical providers. This is not a problem in Bamberg or Orangeburg, but it was and continues to be an ongoing problem in Allendale and Hampton. Retention and recruitment of primary care and perinatal providers is a major challenge in the Low Country region. Between June of 2001 and May of 2005, several providers have left the practices of Health Centers in Hampton and Allendale County (a Rural Health Clinic, Harrison Peoples and in Allendale County, a FQHC, Low Country Health Care Center). Both practices continue to try and recruit other providers to relocate to the service area.

June 2005, the Level 1 Hospital in Allendale no longer provides OB care. The local FQHC in Allendale County has established a partnership with several OB practices in counties where there are Level I and Level II Hospitals. For example, an OB practice in a neighboring county,

Walterboro, has two doctors that will follow patients from the center after 32 weeks of pregnancy.

Because of service fragmentation and gaps in Allendale and Hampton Counties, LCHS has developed strategies to ensure the consumers' coordination of care. Strategies include scheduled meetings with providers outside of the service area where LCHS pregnant consumers are being referred for care. These counties include Barnwell, Walterboro, Beaufort and Aiken Counties.

LCHS Perinatal Community Outreach Workers (PCOW) have contacted local health departments to determine days and times of pregnancy tests. This is important because of staff shortages, and the challenging days and times services are being offered. It is important that LCHS Perinatal Resource Coordinators (PRCs) receive ongoing training on signs and symptoms of preterm labor, infections, diabetes and hypertension to ensure comprehensive services are available for women.

Orangeburg FQHC, called Family Health Center, serves a substantial number of infants as well as provides obstetric care to some women. LCHS program director has met several times with the staff of Family Health Center to establish a working relationship and partnership; however, there has not been a positive response. During Year 4, because the Health Center had difficulty in retaining Masters level social workers, the LCHS program director offered the services of social work along with outreach. Hopefully, these talks will continue during Phase III of the Healthy Start program.

During Years 2 and 3, another FQHC who is located approximately one hour from the Healthy Start service area, Beaufort Jasper Comprehensive Health Care Center (BJCHCC), moved primary health care and half time prenatal services into the Estill area of Hampton County. However, Hampton County does not have a birthing hospital and those patients of BJCHCC will deliver in Beaufort County (about an hour away).

The leadership of LCHS continues to be confident about its case management, outreach and health education services. As a result of the work done over the years, LCHS services have strengthened the perinatal system.

A primary problem which has not improved with time - is the lack of transportation for medical and social services. In Bamberg, Hampton, and Orangeburg Counties, there are no public transportation systems. In Allendale County, there is cause for hope with desperately needed transportation because of the recently implemented Low Country Scooter Transportation service. Transportation is available to LCHS consumers; however, it requires payment and many pregnant women lack resources to use it. The concept of the newly developed Transit System is that local and existing agencies share their seats for the community. Lower Transit Regional Authority (LRTA) along with South Carolina Council of Governments (COG) was instrumental in bringing groups together for a valuable initiative of which LCHS is a partner. Because Allendale County received support from its community and accolades from local and state representatives for its initiative, Bamberg County currently wants to model Allendale's Transit System. During Year 4, the initiative was brought before the County Council and the LCHS project director was invited to attend a County Council meeting to educate the Council on the progress of Allendale's Scooter and the need for this service in Bamberg County.

LCHS made transportation funds available to purchase tokens for program consumers in Allendale County to attend prenatal care, post partum follow up visits, well child, immunization visits or mental health and substance abuse visits. In other counties, LCHS will contract with individual providers to provide necessary transportation, when other transportation is not available. LCHS only provided transportation assistance when it was deemed that without help, the woman would not keep her or her infant's medical appointments. Allendale County Scooter makes approximately 870 trips per month and made 14,000 one way trips during 2004. South Carolina State University and Voorhees College, historically black colleges have donated \$ 60,000 of seed money toward the success of the program.

Another significant barrier is the lack of adequate mental health services in the service area. This was a major problem for years and one which shows no signs of improvement. The lack of mental health services in rural America are a major concern of the US Department of Health and Human Services, HRSA, as well as the LCHS Program Director. In the service area, consumers are reluctant to go to public mental health centers due to the stigma, long waits and inadequate services. Second, mental health centers are woefully understaffed and have real difficulty accepting and managing referrals. During Year 4, in Allendale County, a consumer attempted to hang herself while in the physician's office by using a piece of tubing. The provider called mental health and was told they could not assist because only one staff person was available at the mental health clinic. The nearest psychiatrist was in Beaufort, 60 miles from Allendale. (See LCHS mental health interventions in the section on Depression).

Sustainability:

During Year 1, LCHS worked to develop services for pregnant women and infants that were reimbursed through Medicaid. Family Support Services was the program most compatible with services provided by Healthy Start, for example, case management, outreach and health education. LCHS Program Director and Grantee, SCORH met with the Department of Health and Human Services (DHHS). Representatives from DHHS were Senior State Medicaid Program staff.

Beginning June of Year 1, several strategies were developed with hopes that the LCHS project could move toward earning revenue and increased self sustainability. LCHS completed a study with steps needed to build a billing and collection system to enroll as Medicaid providers. The former MCH Title V Director, Marie Meglen was hired as a consultant to assist with billing for services using Medicaid. A projection of revenue for program income was also calculated based on LCHS consumers and visits. The Program Director and Consultant used the document, Opportunities to Use Medicaid in Support of Maternal and Child Health Services, from HRSA, as a guide in analyzing potential funding streams through Medicaid. LCHS projected \$50,000 in program income from billing Medicaid. A major setback was the fact that \$100,000 was required by South Carolina to pay the portion of the state's required match. Neither LCHS nor the SC Office of Rural Health had matching funds available.

In Year 3, there was dialogue among the three Healthy Start projects to investigate ways to receive state direct appropriations. However, during the talks there was a 15% state cut and talks had to be eliminated with state representatives about appropriations.

LCHS has worked with providers throughout the area, particularly public and not-for-profit health centers. In Allendale County, the FQHC received a rural health outreach grant and asked LCHS to manage the home visitor's component included in the Women's Health Initiative. This Federal Office of Rural Health Policy outreach grant ended April 2004. The Health Center was unable to sustain the services.

LCHS participated in writing the CAP grant that was awarded to Family Health Centers, Inc. LCHS was included in the proposal as a partner; however, no funds were awarded once negotiations were completed between HRSA and Family Health Centers. Monies were used mostly for Pharmacy Assistance and Patient Assistance Programs.

In Year 1, the state Medicaid program staff was considering piloting a primary case management program. The acting Medical Director was working with LCHS and the SCORH to determine if a Perinatal focused primary case management program could be developed and piloted in the LCHS service area. An investigational and discussion meeting was held in mid 2004 to discuss the possibilities for next steps. However, nothing has materialized and it seems that Medicaid is now moving toward Managed Care. Prior to the end of Year 4, Medicaid has contracted with a company out of St. Petersburg Florida called Community Health Solutions, a network that will manage and coordinate care for Medicaid families. The program will consist of an integrated management strategy that provides risk assessments and coordination of care.

During Years 3 and 4, the state Medicaid System suffered. Efforts to seek opportunities through DHHS have dwindled and have been futile, mainly because of the condition of the state's system along with agencies that are fighting to maintain their current level of state funding.

During Years 1 through 4, LCHS has continued to work to integrate what has been learned from working in the communities, from programmatic data, from vital and Medicaid data and from listening to the women themselves. LCHS has informed local, state, field office and federal MCH staff about what has been learned, implemented, effective, and useful so that state and federal resources reflect the work, value and changes taking place in Perinatal care in the rural counties in the Low Country of South Carolina.

In Year 4, the LCHS Program Director met with one of the partners for the Department of Health and Human Services (DHHS). As previously stated above, DHHS has contracted to launch a program in the Low Country of SC with a company from Florida called Community Health Solutions of America (CHS). The program will be a pilot for Medicaid recipients in the Low Country. The program will target the four counties currently served by LCHS. The purpose of this program will be to focus on preventative care, increase the recipients' education about their care needs and decrease emergency room visits, thereby decreasing costs. LCHS has been meeting with representatives from CHS and hopes to establish a partnership to sustain portions of the maternal and infant component of the program.

During Years 1 through 4, LCHS program director has also been vigilant seeking other funding streams. LCHS has been instrumental in establishing partnerships for programs such as pregnancy prevention and oral health for children, however, none to sustain case management, health education and outreach services.

In 2002, DHEC was awarded a Robert Wood Johnson Foundation grant to ensure children up to six years would have access to basic oral health care. The goal of the project was to eliminate oral health disparities among minorities; children with special needs and those economically disadvantaged who are uninsured and underinsured. The project was implemented in Hampton County because of the high incidences of children with tooth decay. Hampton County was one of six counties chosen. One of LCHS seasoned workers, a PRC, worked part-time with the oral health program.

The LCHS Program Director served on the March of Dimes Committee and Richland Memorial Hospital South Carolina Perinatal Board. Work focused on identifying and closing gaps, improving access to care, eliminating health disparities and increasing knowledge and education. During Year 4, LCHS applied for a March of Dimes grant, however, was not funded.

Medicaid reimbursement options – given budget cuts – is not a promising strategy to support work beyond federal MCHB funding. However, South Carolina has a history of piloting case management programs. That is how the Medicaid Family Support Services (FSS) began.

LCHS has been able to maximize resources by partnering with agencies who valued the work of the home visiting program, however, those resources have been short term and when funds go away, the number of consumers served decreased. Consumers participating in the Women's Health Project through Low Country Health Care System, for example were offered to attend LCHS consumer club meetings and other activities sponsored by LCHS. Extended office hours for Low Country Health Care System were studied and hopefully, will be expanded for families who work during the day and cannot keep appointments.

LCHS involved the Consortium about sustaining the LCHS project. It was clear to the Board the time and energy invested by LCHS to find additional resources for sustainability. Many of the health sector Consortium members have grown increasingly more concerned – in fact alarmed – about health and social service staff position vacancies, as these positions were crucial to helping women have healthy babies. Consortia members have been faced with trying to find resources to sustain their own services as many programs have no flexibility in developing additional, outside resources.

III. Project Management and Governance

The LCHS program management and governance remained basically intact for all four years of the grant period, 2001 through 2005. The Program Director has served since 1999. LCHS Program Supervisors have remained dedicated to improving the lives of women and families by working closely with professional and paraprofessional staff to ensure the program's goals and objectives are met. The Executive Director of the SC Office of Rural Health (LCHS home organization), Chief Financial Officer and the Financial Analyst worked closely with the LCHS Director and staff to provide fiduciary responsibility and financial oversight.

During Years 1 through 4, LCHS had the support of the LCHS Advisory Board and Consortium. Many community leaders, agencies and organizations have supported LCHS efforts by being

involved with initiatives that assisted in decreasing infant mortality.

All four core services for which LCHS was funded were implemented. LCHS social workers administered Depression Screening, alcohol and drug and domestic violence screening tools to program consumers during enrollment and worked to find assistance for identified problems.

During Years 1 through 4, LCHS maintained a strong base of clinical providers who participated in Multidisciplinary Team Meetings. A Health Educator, a master's prepared nurse provided education and support to the LCHS staff, program consumers and community participants throughout the project year.

Throughout the program period, the South Carolina Budget and Control Board, Office of Research and Demographics were the LCHS contractor for data collection, data management and evaluation.

In September 2002, the LCHS Program Director analyzed programmatic needs and initiated several changes to address these needs. Based on the review, two PRCs, Estella Cohen and Tonya Robinson who worked with the LCHS program for several years were named PRC supervisors. These women knew LCHS communities, were familiar with the dynamics of the family structure, and were aware of the challenges home visitors face daily.

A licensed master's prepared social worker; Loretta Green was named Deputy Director. She completed a tremendous amount of work assisting the Program Director with developing, creating, and maintaining collaborative partnerships.

Regarding program management and resources, LCHS Consortium and community members have provided in kind services, particularly in the form of time when activities were held in Years 1 through 4. For example, LCHS held Family Strengthening Conferences and the faith based community along with partners were included in the planning and in the implementation.

Because HRSA does not allow funds to be used for consumer incentives, LCHS partners, consortium members, individuals and providers donated money for small stipends to be given to consumers.

Another resource that proved valuable for the LCHS program is the assistance of local newspapers and other media in advertising and promoting the activities and services. Toward the end of Year 4, LCHS increased the number of consumer referrals and/or calls about the program.

In 2002, the SCORH restructured its operational processes to improve efficiency. John "Buddy" Watkins retired as the Executive Director and Dr. Graham Adams was appointed. Dr. Adams had been with the SCORH since 1995 and was involved in the submission of the first Healthy Start grant in 1997. SCORH streamlined administrative processes by consolidating duplicative programs, restructuring staff responsibilities and clarified Board member roles and responsibilities.

The SCORH who is the Grantee and fiscal agency developed cost reports and payables to ensure timely distribution of funds.

The LCHS program director and SCORH CFO met to discuss the budget and to ensure expenditures are received and deliverables being met. The Deputy Director and PRC Supervisor provided oversight to existing contracts and Memorandums of Agreement. The contractors and LCHS maintained frequent and open communication and met regularly to ensure appropriate services.

During the project year, there were no additional resources (non-HS) used for LCHS program activities, however as previously mentioned, a significant partnership that resulted during the grant cycle occurred with Low Country Health Care System, Inc. (LCHCS), a federally funded community health center in Allendale County was awarded an outreach grant by the Office of Rural Health Policy at HRSA. The focus was on improving women's health in Allendale County. Because of the positive impact the PRC program had in the area, LCHCS replicated the concept for their patients. One of LCHS's most experienced PRC, Estella Cohen, mentored and facilitated the initiative at LCHCS. The partnership helped maximize federal dollars and institutionalized a proven method of infant mortality reduction in South Carolina's most vulnerable county. The partnership had also been a positive one for LCHS, as more women were being reached with increased PRCs in the field, and without additional MCHB investment. Unfortunately the program was not extended beyond the required years and could not be sustained by LCHCS.

The Office of Research and Statistics (ORS), South Carolina Budget and Control Board, served as the principal research and statistical arm of SC State government, conducted data collection and evaluation for the LCHS project. During the past four years, ORS has accomplished the evaluation through not only the LCHS database but Medicaid data, Vital Records data and the Uniform Billing Hospital data. The Vital Records data were made available to ORS via a memorandum of agreement with the SC DHEC. By legislation, each hospital submits a uniform discharge summary to ORS on each patient. Further, a three way memorandum existed among SC DHEC, SC DHHS, and the ORS for the linkage by the ORS of the Uniform Billing Hospital data, Vital Records data, and Medicaid claims data. The benefit of the linked data was to track consumers across multiple services.

There were no issues or circumstances of which cultural competence was an issue. Staff and contractors were recruited based on the needs of a particular community. Staff and contractors had strong ties to the community, spoke the "language" of the community and also lived in the community. Poverty plagues the entire service area; therefore, having staff from those areas ensured the provision of services and interventions.

Contractors who were not hired as staff and were from agencies received ongoing training on cultural competence. LCHS staff were mentored and trained so that they became comfortable providing services to consumers and giving presentations before community groups. LCHS staff were provided data on unfavorable outcomes of racial and ethnic groups in the service area. The data provided a basis of why LCHS chose African Americans as the target group.

Consumers were pleased with the services provided. During Years 1 through 4, LCHS administered Consumer Satisfaction Surveys. The outcomes were that consumers were satisfied with the services provided by LCHS. High levels of satisfaction were reported for the friendliness

of the staff, availability of the staff and the assistance provided by staff in helping consumers navigate the sometimes complicated system.

IV. Project Accomplishments

The LCHS implementation plan, outlining project accomplishments, is included following section IX and before the data tables (see Attachment A). In that section, major strategies are outlined as is the work accomplished. The objectives are outlined and the degree of success noted. LCHS has made much progress and has learned many lessons. Earlier sections of this report outline qualitative achievements and the data tables quantify achievements and areas for improvement.

The major lessons learned relate to the key importance of recruiting and retaining qualified, highly motivated, empathetic, wise and willing staff. Another major lesson learned is the need to develop supervisory skills and keep those skills honed. The home visiting work is difficult and the literature clearly documents that burn out and turnover is often the result. LCHS intends to continue focusing on helping LCHS workers help consumers.

Another significant and on-going problem for LCHS has been in programmatic data collection, data management, data entry, data retrieval and assistance from evaluation. To that end, LCHS held two facilitated data discussions at the end of the fourth year. One discussion meeting included all staff participating and providing input and concerns and the other included LCHS supervisors, the Program Director and two staff members, along with staff from the Office of Research and Statistics. Improvements are currently being made and a new process implemented for data entry is in place, however, this looms as an on-going and costly issue. Improved data collection forms have been developed and tested and are in use currently. This is a carry over challenge to the newly funded project.

LCHS is very pleased that staff are recognized throughout the service area as leaders and as encouragers of perinatal health. They are called upon by perinatal providers and public health leaders. The Program Director serves on many local, regional and state boards, task forces and advisory groups and fully uses those opportunities to raise awareness and spark problem solving.

The best and most prized accomplishment for LCHS is the fact that infant and neonatal mortality in the African American population have dropped significantly since LCHS began its work in the region. Many other providers, as well as state and federal policy contributed to this success. According to the SC Office of Research and Statistics, there was a statistically significant decreasing trend from 1999 to 2002 for the African American (Black) infant mortality rate and African American neonatal mortality rate in the service area. The neonatal mortality in the African American infant population contributed most to the infant mortality decline in 2000-2002. The African American postneonatal mortality dropped enough to match the state rate. LCHS is heartened by these important reductions in deaths and improvement in health and fully recognizes that attribution or cause and effect are hard to document. LCHS is also very aware that progress may change again with all the budget cuts, provider losses and family income losses. LCHS also is very aware that much remains to be done. LCHS will continue the work begun and with some changes in strategy expect to make an even bigger impact in the lives of the African American families in the LCHS service area.

V. Project Impact

Systems of Care: Every year, LCHS deliberately focused on developing, repairing and enhancing collaboration among providers as collaboration and avoiding duplication was crucial to success in reducing infant mortality. LCHS used several strategies to improve collaboration including conducting, staffing and regularly convening the Consortium, Multidisciplinary Team Meetings and Care Coordination Meetings.

LCHS also conducted a very successful Multidisciplinary Team Retreat and Strategic Planning meeting in August 2004 to help re-focus key providers on how to work together better to overcome serious perinatal system of care issues. The planning meeting was also used to discuss work that needed to be included in the subsequent LCHS proposal to the Maternal and Child Health Bureau in response to the call for proposals.

Providers routinely sought by LCHS for collaborative work included all four county health departments, the FQHCs in Orangeburg and Allendale counties, private obstetric providers in Orangeburg, Bamberg and Hampton Counties. In Allendale County, the FQHC provides virtually all the prenatal and delivery care except for high risk women who are referred to an appropriate tertiary or Level II hospital. Throughout the four years of the period covered, LCHS repeatedly attempted to work with Beaufort, Jasper, Hampton Comprehensive Health Services, Inc. (BJHCHS) – an FQHC. These attempts to work directly with this provider were not notably successful, however, LCHS did not give up and at the time of this report some progress is being realized. The Executive Director of BJHCHS said they would work with LCHS but the clinical providers and staff in the Hampton County site changed regularly and it was very difficult to keep a continuous line of dialogue open. The Rural Health Clinic in Hampton County provides post-partum and pediatric care and so LCHS worked with them on a regular basis as well.

LCHS also worked with hospital administrators of the three birthing hospitals in the service area, as well as with the nursing staffs. LCHS also reached out to the front desk staff in the practices that provide obstetric and newborn care.

LCHS used the approach of keeping the work being provided on the forefront. LCHS reached out to providers at least monthly through one of the above meetings. As staff in LCHS or other provider's offices changed, LCHS was aware of the need to keep the work going and so the supervisors and program director took on the responsibility for making introductions, re-introductions and keeping dialogue open and continuous.

Through the time period covered by this report, numerous clinical staff from the FQHCs changed. The private obstetric, pediatric and family practice clinicians remained basically stable; however, one excellent nurse midwife working in Bamberg did leave the service area.

Policies and procedures of LCHS changed as necessary based on resources, the needs of consumers and the requests or suggestions of partner providers. At LCHS urging, a few provider's

offices changed policies designed to remove barriers for first trimester appointments to prenatal care. These changes made, however, were difficult to document over time and it was quite difficult to keep the change made – a change retained.

Relationships and the rapport among providers in the service area has definitely improved as a result of LCHS convening providers and keeping as many as possible involved in the work to reduce perinatal disparities and reduce infant mortality. LCHS is the only program in the service area with this important mission and so keeping the subject of reducing disparities in perinatal health on the health service agenda was very important.

LCHS was successful in bringing consumers to the table and helping them voice concerns and needs with LCHS, each other, as well as with providers and local policy makers. From time to time, consumers may have been too direct about problems and areas for service improvement and as a result an occasional provider might have been offended. For the most part, however, LCHS and other providers welcomed direct input about what could be done to improve services. The extent to which suggestions made were implemented and retained remains an issue for work.

LCHS had a major, positive impact on care coordination specifically because of the systematic, planned, scheduled and conducted Multidisciplinary Team Meetings and Care Coordination Meetings. These meetings were conducted by LCHS staff and an agenda was used to guide discussion for each meeting. The meetings were conducted so that time was used productively and thus providers were willing participants. Providers have given very positive feedback about these meetings and show their support through active attendance and thoughtful participation.

During the time of this budget period, coordination, outreach and intake requirements for the Medicaid program have grown more cumbersome not less. By design and plan, the Medicaid application process was changed from the historic way it was done for decades. Before the change, county departments of social services were responsible for taking applications. Consumers were very used to that process and knew – more or less – what to expect. A new agency was formed in each county, with Medicaid applications taken by new staff. The numbers of new Medicaid consumers were reduced and confusion was increased. Providers were again forced to question whether pregnant women would be Medicaid eligible and thus some would not schedule a prenatal appointment until Medicaid was approved. LCHS had worked and worked, as had other partners, to assure prenatal providers that the likelihood was that targeted African American pregnant women in the service area would be Medicaid approved and that it was not really risky to see the patient before eligibility was confirmed as almost all are. The new process for Medicaid eligibility had a negative impact in the service area. (The state Medicaid agency and the Governor have continued their work to reduce expenditures for Medicaid consumers, including submitting an 1115 waiver request to CMS in June 2005 which, if approved would damage the fragile system of health care in the service area and throughout rural South Carolina.)

Sharing of specific patient data among providers and sharing of referral information has been strengthened by LCHS obtaining patient consent to share information and data. The implementation of HIPAA caused some momentary concerns; however, for the most part individual patient data have been shared in a protective and useful way with providers who were directly involved in providing perinatal services.

Specific quality improvement or process improvement initiatives, per se were not undertaken in the years of this report, however, the work done to assure women had a health care home for post-partum and family planning care could be considered QI work. Process improvement projects are indicated and will be considered for the future.

Case management workgroups have been conducted from time to time to assure providers in the service area are not over visiting some consumers, while others go without. LCHS has actively participated in groups working to streamline referrals and to assure that all resources are used effectively and that duplication does not occur. LCHS active work with providers and consumers and the culture of cooperation and collaboration has made LCHS a trusted partner and a reliable collaborator.

An ever present issue among African American pregnant and post-partum women is in the area of finding reliable transportation for health care visits and child care. LCHS has been very aware of these issues and vocal about finding assets to address these. In Allendale County some progress has been made in the transportation arena. Other counties have not been as aggressive in solving transportation problems as has Allendale. LCHS will continue to advocate for safe and reliable child care and useful, reliable transportation.

Another system of care issue that remains difficult is perinatal provider retention, especially by the FQHCs. The time and stress involved in consumers and other providers acclimating to and building rapport with a steady stream of new perinatal providers is not helpful and in some cases might be destructive. Providing back-up and other support to new providers was one of the rationales the Allendale County Hospital used when they announced they would stop providing obstetric services in June 2005. This is a devastating blow to the consumers that use the hospital, to the FQHC that relied on the hospital for delivering consumers, to the FQHC that relied on using the hospital for securing new pediatric patients and to the entire fragile, perinatal system in the Low Country.

Impact to the Community:

LCHS kept community residents abreast of events, resources and perinatal issues through sponsoring billboards, newspaper articles, radio station interviews and announcements as well as through working with a local cable television channel. In Years 1 through 4, LCHS purchased billboards in all counties. LCHS maintained a listing in the community section of a local area newspaper advertising services. Partnerships were developed with popular radio stations through public service announcements airing LCHS events, health messages and services. Community residents were also recruited to assist LCHS staff in sponsoring Family Conferences and an Infant Mortality Walk.

In its advocacy role, LCHS has worked to ensure the community understands the needs of women of childbearing age. LCHS has involved the faith community, local businesses, health providers, African American sororities and fraternities about the work of LCHS and how health status can affect outcomes. Community representatives have assured the staff that the work of Healthy Start would be known in their churches and among the brothers and sisters of fraternities and sororities. Community and Civic leaders are more aware of how difficult gaining access to health care is if

you are poor, do not have personal transportation, are discriminated against, are left waiting for hours, are insulted and ignored.

LCHS frequently provided information at health fairs hosted by various members of the communities to increase awareness regarding infant mortality and increase understanding of consequences for women not having healthy and intended pregnancies.

Consumer participation in LCHS focus groups, consortium, annual retreats and consumer club meetings enabled consumers to become empowered. Through coaching and support by LCHS staff, consumers have been able to identify areas of improvements whether it has been in their community, with their provider and/or through human service agencies. Women shared barriers that prevented them from going in to care. For example, long waiting times, problems scheduling appointments and inconvenient office hours were expressed. LCHS worked to encourage providers and others to make changes in their services to accommodate consumers. Several providers went to open access appointments, offered at least one day per week for extended hours and/or made attempts to work on scheduling. Customer service is not always the driving force in practice management but LCHS will continue to work with providers and other human service agencies to improve customer satisfaction and effective access to care.

Each consumer who attended board meetings and other events sponsored by LCHS, were coached, and encouraged to voice ideas and were given support in articulating their concerns. Consumers voice concerns regarding access to health care and provide feedback as to what they perceive to be barriers based on personal experiences. Consumers were vocal in expressing their satisfaction and/or dissatisfaction with provider services, including LCHS and gave suggestions on how to make provider services friendlier.

LCHS staff served on various committees throughout the service area during Years 1 through 4. Partners invited LCHS staff to assist them with their annual events. During those times, LCHS staff used the opportunity to link consumers with services. When there were differences of opinions, the Program Director worked one on one with the community representatives to resolve barriers. Much effort has been invested in coordination with other agencies and community representatives.

LCHS has worked diligently to raise awareness of perinatal system problems, barriers and gaps in the service area, to be a part of the solution to improve service for patients, and to improve the system for providers. Those times when partners questioned the validity of the problem, LCHS program director would gather additional information which provided detailed data. LCHS has provided several forums that assisted the community and participants in knowing what is available in their area. Awareness regarding perinatal health issues and the system needs are better understood because of the work of the LCHS staff and the Consortium.

The LCHS initiative continued to explore ways to improve the quality of life for program consumers, women of childbearing age, men and partners. One objective for the LCHS program director when recruiting staff has been to consider consumers who are or have participated in the program, for positions with LCHS. As a result, several consumers have been hired to provide home visiting and outreach services.

From the beginning, LCHS has insisted that the people who work for the program live in the service area. This policy continued in the four years of the project and most all staff live in their service area. In this essential way, LCHS has created quite a few good jobs. Civic leaders and perinatal providers are aware of this commitment to hire from within the community served and they have been supportive of the policy. From time to time, LCHS has hired someone from an adjoining county to work in the program but this has been rare and considered an exception to the policy. The local evaluator, SC Office of Rural Health administrative support and programmatic consultants have not lived in the service area, however, the portion of resources devoted to those functions has been within acceptable limits and not excessive.

During Years 1 through 4, the LCHS program found itself reaching men through consumer club meetings, home visiting and other events. Therefore, in Year 4, a male was recruited to mentor the partners of LCHS consumers, hold support groups and assist with program events. He was well received by the community.

Impact on the State:

LCHS has worked actively with the state Title V agency over the entire four years of the grant period. The state Title V agency has experienced painful reorganizations, has lost key leadership and has suffered from budget cuts. LCHS has remained vigilant in trying to work with the state Title V agency regardless of who has served at the helm. LCHS has also worked to influence policy in working with the Title V staff to focus more deliberately on African American women and infants. LCHS has also been aggressive in finding assistance from Title V especially in the area of family planning. The family planning Title X program is a part of the Title V area currently. Over and over, LCHS worked to learn more about services available to women through Title V. LCHS, on advice from a senior Title V leader, found a private consultant to assist with teaching the staff and consumers about effective family planning methods.

Additionally, LCHS participated (as mentioned earlier) in developing the Title V 2005 needs assessment. Admittedly by South Carolina Title V leaders, the process for giving input, deliberating, reviewing data and setting priorities was not smooth for the Program Director to fully participate.

LCHS helped co-sponsor meetings and conferences with Title V designed to reduce African American infant mortality.

LCHS worked with the Perinatal Program director to include the regional perinatal program staff in work planned and done in the Low Country. The Title V program supports an obstetric outreach educator and a neonatal outreach educator and LCHS consistently invites their participation in Consortium work and in problem solving.

LCHS also is considered a valued, community sensitive advisor to senior MCH staff and is occasionally called upon for input on what is working at the county health department level and what is not. The LCHS program director was once a county health department employee and through that experience and the experiences as the program director often has insightful feedback.

LCHS has met over the years with senior leaders in the Medicaid program, especially in the area of working to sustain the services. Because of the connections of the program director and the Executive Director of the SC Office of Rural Health, a meeting can generally be convened.

A lesson learned from working with the other two Healthy Start programs in SC and with the state level Title V staff is that it takes persistence, time and a real devotion to the idea that collaboration is beneficial to make efforts worthwhile. One Healthy Start program is located in Columbia, the state capitol. The resources available to that population and the Palmetto Healthy Start program are enviable. Many of the issues faced are not similar. The Pee Dee Healthy Start program serves a rural population; however, the service mix and design are not completely aligned.

LCHS values the relationship with the State Title V agency staff and considers the investment in time made to keep connected to be a wise investment. The state level Title V staff are currently distraught due to the significant budget cuts and the major changes to the services cut by Medicaid. Much revenue has been lost by the state and the county health departments and the fear and uncertainty are palpable. LCHS will continue to work with whatever staff are available to try to keep perinatal issues for rural African American women of child bearing age and infants – in the forefront and on the state MCH agenda.

Local Government Role:

In Years 1 through 4, Senator Hutto from Senatorial District 40 has been an ex-officio for the LCHS Board. He continues to attend meetings when the Senate is not in session. During Years 1 through 4, he praised LCHS for its efforts in performing an excellent service to the community by raising awareness and educating pregnant women and their families, for the rural areas of SC. Senator Hutto serves his constituents in 3 of the 4 Healthy Start sites. He has been visible at LCHS events and has offered the assistance of his wife, Dr. McPherson who is a well known pediatrician in Orangeburg County. Dr. McPherson attended and participated in a LCHS Baby Shower in 2003. Their visibility as a well known team excited several members of the community to become volunteers for the program.

During Year 2, Clyde Livingston, a Certified Public Accountant and County Councilman has served on the LCHS Consortium Board. Councilman Livingston is well known in the community and is a believer in diversity in the workforce and throughout the community sector. He has expressed the need for Healthy Start to remain in the communities because he feels that inadequate health care is linked to other poor outcomes. Because Councilman Livingston owns his tax business in the community and has access to furniture, he previously donated items for a LCHS satellite office in Orangeburg County.

Representatives Lonnie Hosey, Gilda Cobb Hunter and Jerry Govan have supported LCHS throughout the program. All, when representing constituents back home remember the role of LCHS in its efforts to improve the health and well being of women of childbearing age.

At the time this report is being written, South Carolina's Medicaid system is about to make what others call "the most radical change ever made in a State Medicaid program". On June 7, 2005,

SC requested federal permission to replace the Medicaid program with a system of private accounts. This change, if approved, would affect more than 700,000 low income South Carolina children, parents, seniors and people with disabilities. (Source: **Budget and Policy Priorities August 10, 2005.**) Beneficiaries, including pregnant women and children, would face significant increases in out-of-pocket costs for health care. Several groups, organizations and churches have begun to hold town hall and church meetings to raise awareness to the community as well as inform the Governor of how this drastic move would impact poor people. LCHS will inform the consumers as well as host meetings with the Department of Health and Human Services and attend town hall meetings to raise awareness and be kept informed.

There have been several barriers at the state level which impacted local communities and services. For example, the health status of LCHS service area residents is dependent – in large part – to the economic condition of the area. The income level is alarmingly low and the unemployment level among minorities in the service area continues to escalate. However, the work of government seems to be impacted by partisan politics. The issues of the poor and working poor are becoming even more marginalized, untouched and ignored.

It is also unclear what the impact for South Carolina will be in having a senior Senator (Senator Fritz Hollings) retire and a new Senator elected.

LCHS is positioned strategically to continue the work to bring the issues of infant mortality, morbidity and disparity to the attention of whomever represents the constituents of the Low Country. Great strides have been made to improve relationships and bring understanding about the disparity issues in African American perinatal health and infant mortality with all members of South Carolina's delegation and staff. This work will continue as it is essential that local, state and federal representatives understand the issues and the role they play in improving access to health services and health outcomes.

VI. Local Evaluation

The goal of the local evaluation was to assess the effectiveness and progress of the program in achieving its objectives and performance measures. The local evaluation employed a simple time series design which utilized both primary and secondary data sources. The main function of the primary data was to facilitate daily case management operations. The secondary data, which consisted of Medicaid data, Vital Records data, and the Uniform Billing hospital data, was used for surveillance and epidemiological assessments. The local evaluation was accomplished through the use of an integrated data system which linked with the primary and secondary data. In addition to the data system, an evaluation "notebook" was developed to facilitate the process evaluation by collecting program data external to the data system, such as meeting minutes, survey results, pre/post test results, and other qualitative and process measures. A list of the data captured in the notebook is provided below:

- Consortium membership lists, meeting attendance logs, and meeting minutes
- Consortium pre-test and post-test results, along with samples of pre-tests/post-tests given
- Attendance logs, copies of presentations, and evaluation results from annual retreats
- Results of Consumer Satisfaction surveys
- Records of external meetings attended by LCHS staff

- Records of events and activities organized or attended by LCHS staff
- Records of public service announcements (PSAs) implemented
- Records of staff trainings
- Staff flow chart

By monitoring the process measures via the notebook, the evaluation team was able to assess internal validity of the project. The local evaluation and data management were contracted out to the Office of Research and Statistics (ORS) of the South Carolina Budget and Control Board. ORS serves as the principal research and statistical arm of South Carolina State government. The project staff was involved in the evaluation via monthly meetings in which data quality was assessed, updates on progress were provided, and adjustments and/or corrections in the implementation could be made. Specific reports given to project staff each month included:

- Edit Reports that assessed the accuracy and completeness of the data collected.
- Service Reports which provided a review of appointments, referrals, health education classes, and outreach activities.
- Summary Reports that summarized information on consumers' status, type, and relevant indicators of care.

The project staff offered interpretations of the findings and offered suggestions on measurement enhancements.

Changes in Measurement: The components of the evaluation were based on the core services provided and the objectives related to each service. In Years 01 and 02, the core services were Outreach and Client Recruitment, Case Management, Health Education, and Consortium. In Year 3, the core services were expanded to explicitly include Interconceptional Care and Depression Screening and Referrals. Below is a list of the performance indicators related to each objective of the program. To indicate when objectives were added or dropped, the project year in which activities for the objectives were performed are given. All objectives were included in the evaluation study.

Performance Indicator	Project Year			
	01	02	03	04
Percent of women who receive adequate prenatal care (based on Kessner Index).	X	X	X	X
Percent of children who complete full immunizations scheduled by their second birthday.	X	X	X	X
Percent of infants that demonstrate compliance to the well-child check-up schedule, as recommended by AAP.			X	X
Percent of completed referrals for infants identified as having special needs.	X	X	X	X
Percent of postpartum women connected to interconceptional services.	X	X		
Percent of women who demonstrate appropriate family planning by postponing subsequent pregnancies for 24 months postpartum.			X	X
Percent of consumers that report satisfaction with case management services and home visiting.	X	X		
Percent of pregnant women who initiate prenatal care in the first trimester of pregnancy.	X	X	X	X
Percent of LBW and VLBW infants born to women who receive prenatal	X	X	X	X

Performance Indicator	Project Year			
	01	02	03	04
Healthy Start services.				
Percent of pregnant women who are cigarette smokers at the time they become pregnant and who participate in health education classes that report quitting smoking early in pregnancy or smoking less.	X	X		
Percent of pregnant women who use drugs or alcohol at the time they become pregnant and who participate in health education classes that report quitting or using less alcohol or other drugs during pregnancy.	X	X		
Percent of women participating in breastfeeding classes who report that they breastfeed their infants.	X	X		
Percent of women screened for depression and appropriately referred to a provider for treatment based on clinical assessment by Healthy Start social worker.			X	X
Number and percent of consumer members who participate in the work/activities of the consortium.	X	X	X	X
Number and percent of consortium members who participate in at least 6 consortium meetings that demonstrate increased knowledge of infant and mortality issues.	X	X	X	X

Data Collection Strategy: The history of the evaluation can best be presented by describing the changes and modifications that have occurred over the 4-year grant period. While the epidemiological piece of the evaluation remained constant, the collection of primary data underwent several modifications. An implicit goal of the evaluation has been that the program could rely solely on primary data for case management. To improve data collection and quality and to meet the goal of relying on primary data, changes were made in Year 03.

- Data collection forms were modified in an attempt to ease the burden of data collection on the staff by combining forms to eliminate duplication and unused data elements.
- A new data entry staff position was created for the purpose of ensuring that all data collected was entered into the program database and assessing the completeness of the data as it related to required fields on data collection forms.

In addition to changes made to improve primary data collection and quality, revisions to the data collection forms and the database were made to facilitate case management and to accommodate changes made by MCHB. In Year 2, a built-in triggering system was added to the database. The triggering system produced alerts for the staff of upcoming appointments for the consumers. Staff could retrieve all the perinatal and infant appointments for both LCHS and medical providers in the upcoming week, so as to reduce missed appointments and case management effectively. Also in Year 2, a procedure for capturing program processes and qualitative data was developed. Records of consortium and outreach activities, program meetings, and staff changes were collected in a program notebook. The notebook was updated monthly with minor revisions needing to be made this coming year.

The type of evaluation study used was comprehensive, combining process, impact, outcome, formative, and summative evaluations. The consortia were engaged at quarterly consortium meetings and annual planning retreats where they were periodically provided with information on

evaluation activities. During the annual planning retreats, the consortia were informed about key perinatal indicators of the Low Country Healthy Start service area.

The implicit hypothesis of the program was that the interventions will reduce infant mortality. Considering, two main research hypotheses were addressed.

1. The interventions of the program will significantly improve access to care evident through an increased number of pregnant women entering prenatal care in their first trimester of pregnancy.
2. The interventions of the program will significantly improve prenatal care among program consumers.

Processes: The procedures for conducting the local evaluation were based on a team-oriented approach. The evaluation efforts were led by the local evaluator and data team from the Health and Demographics sections, Office of Research and Statistics (ORS), South Carolina Budget and Control Board in conjunction with the project director, deputy director, and program consultant. The consortia were involved in conducting the evaluation through their participation in annual planning retreats. These events allowed the consortia the opportunity to provide feedback on evaluation activities. Community members were not directly involved in the evaluation, but did provide input into program strategies through a cadre of activities such as Consumer Club meetings, Community Baby Showers, Resource Forums, Family Strengthening Conferences, Women's Wellness Festivals and Women's Wellness Group meetings. The Women's Wellness Groups were developed and conducted by LCHS social workers.

The evaluator selected methodologies for the local evaluation varied by core service. For case management, the methods reflected a simple time series, non-experimental design. Analysis of primary and secondary data was used to measure program consumer indicators. Typically, a "one group pretest and post-test" questionnaire was used for assessing changes in knowledge and attitude in regards to health education. Evaluation of outreach focused on process and impact measures, such as documentation of successful activities and the number of individuals recruited into the program due to the efforts of the outreach workers, respectively. Evaluation of the Consortium was process and impact oriented. Their activities were tracked via meeting minutes and changes in knowledge and attitudes via pre-test and post-tests.

The data sources included both primary and secondary data. The primary data collected by the program was linked to secondary data to get a comprehensive picture of the service area. The secondary data used included Medicaid data, Vital Records data, and the Uniform Billing hospital data. Descriptions of the data sources and data usage are given below:

LCHS Database System: The LCHS database is a Microsoft Access system that allows for the following:

- Collecting program data for evaluation purposes
- Maintaining consumer assessment information
- Tracking and maintaining consumer appointments and information
- Creating weekly reports to assist with case management
- Producing quarterly and annual reports for evaluation and education

The LCHS database records detailed information about LCHS consumers. The types of information recorded in the database can be grouped into four main categories: consumer information, appointment and assessment information, consumer referral information, and consumer tracking information. Consumer information data consist of extensive information to identify and contact the consumer and include: name and address, assigned caseworker, Medicaid status, consumer type, and relevant risk assessment information. The appointment and assessment portion of the database contains information to enable case workers to track prenatal, postpartum, infant care, and health education. Consumer referrals detail the type of referral and completion of the referred visit. The consumer tracking portion of the database contains detailed information about women and infant medical care.

The LCHS database generates several reports that aid in individual consumer tracking and evaluation of staff efforts and benefits the staff that manage consumers, the Program Director, local evaluator, and the federal reporting agency. The reports were generated by the LCHS data entry clerk and ORS on a weekly, monthly, and annual basis.

Weekly, the LCHS data entry clerk generated reports, referred to as “trigger reminders”, using the LCHS database. The “triggers reminders” were used by LCHS staff to assist with case management. The reports include, for each consumer, a list of upcoming appointments, pending referrals, and relevant dates, such as EDC and birth control renewal dates.

On a monthly basis, ORS utilized the LCHS database to create reports for each LCHS staff member, as well as the Project Director to assess progress and to assist in maintaining the goals and quality of the data collection. These reports included:

- A review of the quality of the data collection and entry
- Information to assess the compliance of consumers with appointment and assessment schedules
- Data that summarized information on active LCHS consumers’ status, type, and relevant indicators of care: including prenatal care of pregnant consumers, postpartum visits and birth outcomes of postpartum consumers and well-child visits and immunizations of infant consumers

Annually and most recently, when available, the LCHS database, Medicaid data, Vital Records data and the Uniform Billing Hospital data was used to evaluate the extent to which LCHS met their project goals for core services.

Medicaid Data: Medicaid data was used to assist in quarterly and annual evaluation efforts. This data set includes persons receiving inpatient and outpatient services, office visits and pharmaceuticals paid by Medicaid. Some constraints are placed on this data set by the fact that it is based on claims payment data; thus, information reflects the claims that Medicaid has paid. The basic unit of the Medicaid file is the bill submitted by a provider for care provided to one patient. Ninety-seven percent of Medicaid claims are received within four months. A particular problem with using the Medicaid claims data, however, is that it is just that – claims paid. For example a problem that LCHS experienced using these data came about because women may begin prenatal care before she is eligible for Medicaid. Any visits not paid by

Medicaid are not included in the data. LCHS verified this problem in 2004 but a solution was not developed.

Vital Records Data: Vital Record data contain birth and death information from electronic birth and death certificates for the state. The use of these data further enhanced ORS' evaluation efforts because of the information available on these certificates that are not found elsewhere. Vital Records birth data are generally received quarterly, however for Calendar Year 2004 and for 2005; DHEC has not yet released those data. It is not clear if there is a problem DHEC is attempting to resolve or whether this delay is due to a policy change on making data available in a useful timeframe.

Uniform Billing Hospital Data: This data set encompasses every hospitalization that occurs in the state. Through a legislative mandate, each hospital must submit a uniform discharge summary to ORS for each patient discharged; thus, this data set applies to the entire population of persons discharged from hospitals across the state. This data also includes all visits to emergency departments. The addition of this data set allows for comparisons of the Medicaid and non-Medicaid populations. These data are received quarterly, with a quarterly lag in the information received.

The performance indicators listed above were the measures used to conduct the local evaluation. The instruments used included the data collection forms, screening tools, and the evaluation notebook. The data collection forms were used to capture general consumer information, consumer appointments and referrals, and outreach and health education activities. The screening tools used included a screen for substance abuse, a risk assessment screen, a domestic violence screen, and the Edinburgh depression screen. The notebook was used to collect process and qualitative measures.

Findings and Discussion:

Performance Indicator	Time Period	Percent Effectiveness
Percent of women who receive adequate prenatal care (based on Kessner Index).*	06/01/01 – 12/31/03	59% (237/401)
Percent of children who complete full immunizations scheduled by their second birthday.	06/01/01 – 05/31/05	79% (77/98)
Percent of infants that demonstrate compliance to the well-child check-up schedule, as recommended by AAP.	01/01/03 – 05/31/05	46% (226/489)
Percent of completed referrals for infants identified as having special needs.	06/01/01 – 05/31/05	73% (22/30)
Percent of postpartum women connected to interconceptional services.	06/01/01 – 05/31/05	83% (670/809)
Percent of women who demonstrate appropriate family planning by postponing subsequent pregnancies for 24 months postpartum.	06/01/01 – 05/31/05	94% (950/1010)
Percent of pregnant women who initiate prenatal care in the first trimester of pregnancy.	06/01/01 – 05/31/05	64% (635/995)

Performance Indicator	Time Period	Percent Effectiveness
Percent of LBW and VLBW infants born to women who receive prenatal Healthy Start services.	06/01/01 – 05/31/05	LBW: 11% (64/577) VLBW: 2% (12/577)
Percent of pregnant women who are cigarette smokers at the time they become pregnant and who participate in health education classes that report quitting smoking early in pregnancy or smoking less.**	06/01/01 – 05/31/03	16
Percent of pregnant women who use drugs or alcohol at the time they become pregnant and who participate in health education classes that report quitting or using less alcohol or other drugs during pregnancy.**	06/01/01 – 05/31/03	3
Percent of women participating in breastfeeding classes who report that they breastfeed their infants. **	06/01/01 – 05/31/03	57
Percent of women screened for depression and appropriately referred to a provider for treatment based on clinical assessment by Healthy Start social worker.	01/01/03 – 05/31/05	82% (407/498) screened 22% (18/83) referred

* 2004 and 2005 SCDHEC Vital Records data not available at time of submission.

** Data provided are number of women that participated in health education classes on particular topic.

Special Notes: Regarding the percent of women, who receive prenatal care in the first trimester (shown above), is taken from the Medicaid paid claims file. This is problematic, as noted earlier, as women may receive prenatal care but Medicaid did not pay for the visit. In an earlier report, LCHS verified this issue.

LCHS also knows, from first hand discussions with pediatricians in the service area, that the AAP scheduled is not routinely followed in the largest pediatric practice in the service area. LCHS has verified in other reports that children had more than the average 17 immunizations required, however, because the services system is still fragmented and because providers do not routinely share data, the above number is likely due to under reporting. LCHS is aware of numerous problems with immunization schedules and continues to work to improve reporting and to determine specifically what the problems are and developing solutions to specific problems. For example, beginning June 2005, the Evaluator for LCHS changed the way LCHS will report well child visits. LCHS will now use the State Title V well child schedule. For example, birth through 3 months, the standard visit is 1; birth to 7 mos., the standard visit is 2; birth to 12 mos., the standard visit is 3; birth to 17 mos., the standard visit is 4 and birth through 23 mos., the standard visit is 5. If LCHS used this methodology for 2001-2005, 90% of LCHS infant clients would have gotten their well child visits instead of the 46% shown above.

Consumer Satisfaction Surveys: Four assessments were conducted. The results follow.

	December 2001	July 2002	April 2003	December 2003
Percent of consumer satisfaction with case management services and the home visiting program	94%	85%	90%	87%

In May 2005, a focus group was convened to determine what pregnant and post-partum women found useful and did not find useful in terms of perinatal services, including the LCHS home visiting and case management program. Women who participated in the LCHS program focus group were asked specific questions about their experience with LCHS, as well as with other providers in the service area. Women were very pleased with the LCHS home visiting service and noted that they learned from the home visitors and case managers. The consensus was that home visiting had a number of advantages that made it more feasible for women to learn about services, to get questions answered, to understand care requirements and to use the opportunity to problem solve about care and living concerns. In particular the focus group consumers thought the home visiting component of case management was positive because:

- Home visiting is less costly for the consumer, as she does not have to pay for transportation, buy gas for someone to give them a ride or pay a baby sitter.
- The discussion was less stressful because it happened in the consumer's home
- The consumer was more relaxed because children could play with their own things and do not have to be reprimanded and watched the entire time
- It is private place to confide concerns and ask questions
- It shows concern for someone to come to your house or apartment
- It is convenient not to have to leave home and it is a lot less trouble since the woman does not have to drag a car seat, the infant and all the infant accouterments to someplace else.
- Can concentrate on what is being discussed as there are fewer distractions and concerns.

In addition, Focus Group consumers were clear that they need more education about perinatal care and services. LCHS staff needed to clarify why especially some screenings were done and how the results related to care. Consumers noted that they were comfortable in making suggestions and offering input.

Consortium: From June 2001 through December 2004, thirty nine consumers actively participated in the work of the Consortium and provided input and advice on LCHS activities. This exceeded the objective set by LCHS for active participation.

In Year 1, perinatal education sessions were held for the Consortium members, however, individual pre-test and post-test scores could not be matched due to the data method used.

LCHS sponsored Consortia meetings in Calendar 1 as planned. Educational topics included teen pregnancy and postpartum care issues. A three question pre and post test was given on the teen pregnancy topic. The average score for the group increased from 2.3 to 2.4 (highest score possible is 3). 38% of the group had a perfect score on the pre-test; 77% of the group had a perfect score on the post-test.

In 2003, LCHS education sessions on perinatal health outcomes for African American (AA) women living in the service area were conducted. Consortium members, by county represented, increased knowledge as follows by topic area:

Topic	Allendale	Bamberg	Hampton	Orangeburg
Family planning services after delivery	93%	52%	71%	77%
Infants weighing less than 1500 grams	93%	52%	71%	77%

Community Resources that facilitate, or impede, young pregnant or postpartum women returning to complete high school	100%	90%	100%	88%
--	------	-----	------	-----

In May 2002, a LCHS staff and consortium retreat was held. The topic was reducing racial disparities in perinatal health. Thirty-seven consortium members attended. The highest score possible was 5, and Consortium members rated a 4.5 for improved understanding.

In May 2004, LCHS conducted a Multidisciplinary Provider Retreat. Eighteen providers were invited. Eighteen attended and reported increased knowledge of infant mortality issues, community empowerment and collaboration, purpose of LCHS, and objectives planned to improve perinatal outcomes. Topics included Women’s Health and Services during the prenatal and postpartum period, interconceptional care along with infant health for the first two years of life.

In May 2005, a Consortium and staff retreat was held. Forty-eight attended (19 were consumers). Members reported increase knowledge of infant mortality issues, community empowerment and collaboration, purpose of LCHS, and objectives planned to improve perinatal health and outcomes.

The most significant limitation of the evaluation was inadequate primary data collection and quality. The main cause of this limitation could possibly be attributed to heavy staff turnover, in both case manager and data entry positions. A subsequent cause could be a lack of understanding and appreciation of the data collection procedures evident by the need for continuous re-training on data form completion. Another cause has been under reporting of Risk and Reduction activities. LCHS staff along with the Evaluator and Statistician has worked to re-design data collection forms to accurately report this information. A goal of the evaluation was that the program could function with primary data for case management, but due to the poor quality of the primary data, the program has been dependent on secondary data sources. There is a lag in time as to when the secondary data is available; thus, it can not be used for real-time case management.

A limitation of the evaluation was consumer attrition. Not all consumers were retained in the program through their 24-month postpartum period. Due to the mobile nature of the population, tracking women was basically impossible. Understanding the causes of their early program termination could have been quite helpful in evaluating the program’s effectiveness.

Recommendation: The primary recommendation from the local evaluation was to improve primary data collection, data entry and data reporting to facilitate case management and to monitor program progress.

No further evaluation studies emerged from the local evaluation.

Publications

There were no publications resulting from the local evaluation conducted.

VII. Fetal and Infant Mortality Review (FIMR)

At the beginning of this budget period, LCHS was part of three public health districts. As of this writing, LCHS is part of one mega public health district. During this period, the Edisto Savannah Health District held monthly FIMR meetings. This district covered Bamberg and Orangeburg counties. Meetings were held in Orangeburg and were coordinated by the DHEC Abstractor along with a state Title V representative providing technical assistance. In the past, Allendale County had an active FIMR group, but due to budget cuts they were unable to continue the monthly meetings. Meetings scheduled would inevitably be cancelled. Hampton County has not ever had a FIMR process or group.

The FIMR group in Orangeburg and Bamberg began in 2002. The emphasis was on maternal and infant mortality. The DHEC Abstractor visited the hospitals and providers offices and contacted the coroner's office to obtain information needed for review. Due to the lack of social workers, DHEC usually did not obtain a home assessment interview. This proved to be a barrier to assessing the consumer's home environment, the strengths and needs after an infant loss. The group used a Community Review Team (CRT) approach.

In 2003, LCHS Program Director and deputy director began to participate in the monthly FIMR meetings. Findings from those meetings revealed that most women with a fetal death were unhealthy at the time of conception; many women were obese, experienced multiple STDs and had a history of smoking.

Areas to be addressed in strengthening the FIMR group are to include a more diverse group, develop action and system changes as a result of findings about each death; discuss ways to get the group to understand the dynamics of family issues and make them visible to policy makers and the larger community; and lastly, to identify barriers, find solutions and seize resource opportunities. As a member of the FIMR group, LCHS will continue to participate and suggest ways to improve the group's effectiveness.

VIII. Products

LCHS developed and delivered many presentations to community groups, state audiences as well as some national audiences about the work being done in the LCHS service area and clarification of problems to be solved. Presentations and written materials and handouts have been developed and used with a variety of audiences ranging from the state rural health association to the state perinatal association, as well as to the Consortium, local business groups, numerous churches, African American sororities and fraternities, as well as to civic leaders.

Brochures developed by LCHS as well as incentive items and reminders of good health practices are included as a part of this report. These items, under separate cover, should be forwarded to the MCH Library, Resource and Reference Collection at Georgetown.

IX. Project Data

Please see the following required data tables by individual year.