



2002

healthy start
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Florida Department of Health



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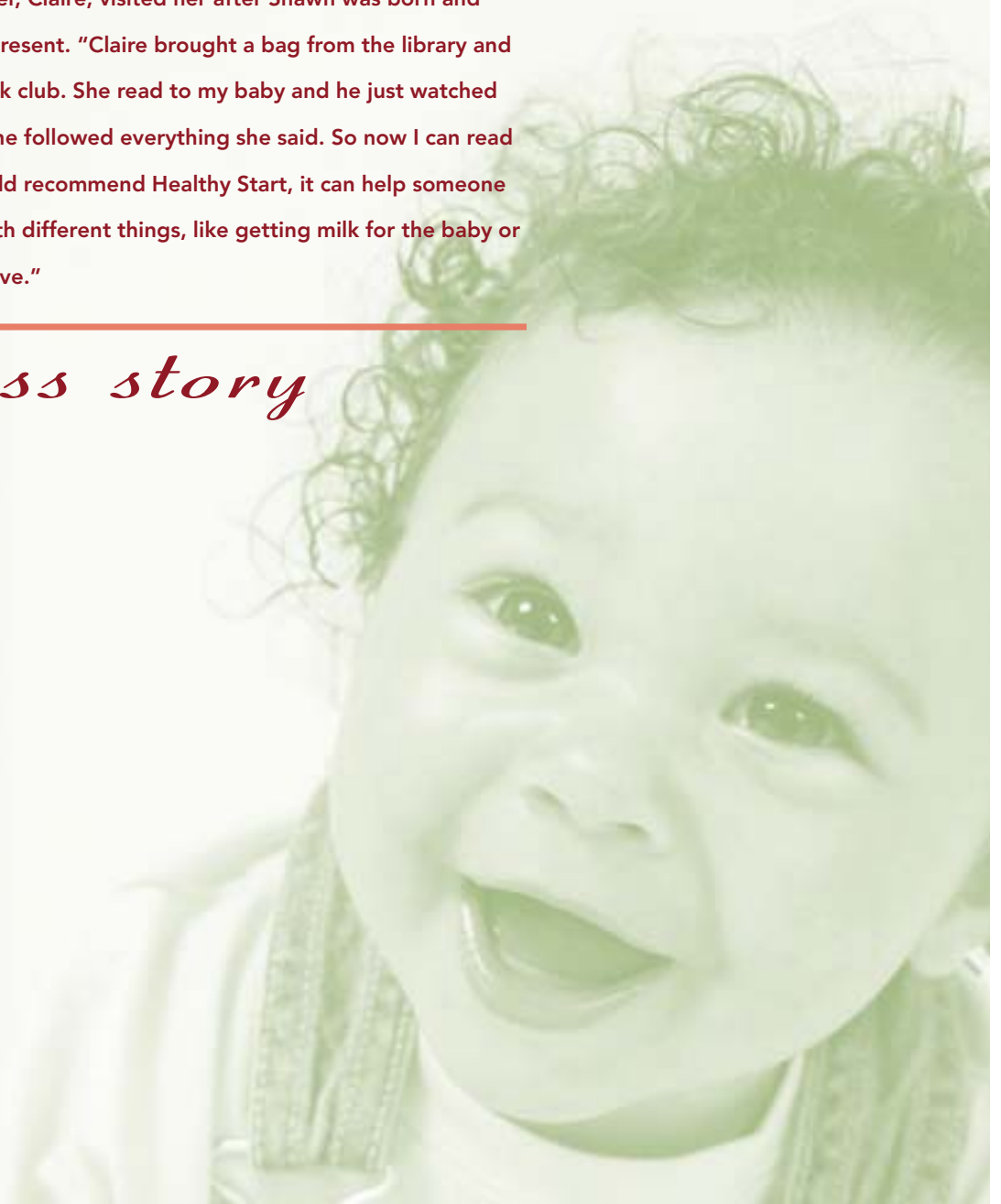
healthy start



Healthy Start helped Shenika obtain insurance and coordinate a doctor's appointment to get prenatal care and prenatal vitamins. She was also provided bus passes to help her get to her doctor's appointments. Shawn was born full term, full weight and healthy. Shenika says one of her best experiences with Healthy Start was when her Healthy Start worker, Claire, visited her after Shawn was born and brought a special present. "Claire brought a bag from the library and now we're in a book club. She read to my baby and he just watched her and the book, he followed everything she said. So now I can read to him too. . .I would recommend Healthy Start, it can help someone who needs help with different things, like getting milk for the baby or finding a place to live."



success story





introduction & Overview

Florida's Healthy Start was implemented in April 1992. Ten years later, Healthy Start continues to provide pregnant women and infants the care they need to achieve healthy outcomes. There are continuing challenges in ensuring optimal health outcomes for all women and infants. During this decade, however, Florida's infant mortality rate has declined from 8.8 per 1,000 live births in 1992 to 7.3 in 2001, a decrease of 17 percent. Additionally, first trimester entry into prenatal care has increased from 78 percent in 1992 to 83 percent in 2001, an increase of 6 percent.

There are still significant challenges to be met. The low birth weight rate in Florida, as in the nation, has not significantly declined. In 2001, the rate was 8.2 per 1,000 live births. The increase in the number of multiple births and the increase in maternal age are contributing factors to the increase in this rate. Additionally, even with great medical and technological advances, the root causes of low birth weight are still not well understood. Racial disparities in health outcomes are especially evident in the maternal and child health population. Black infants remain twice as likely to be born at a low birth weight than infants of other races and are twice as likely to die within the first year of life.

At the heart of the Healthy Start initiative are local Healthy Start coalitions. These local coalitions bring together key partners at the local level to address issues impacting the maternal and child health system. During the last contract year, Healthy Start coalitions reported leveraging over \$10 million in additional cash and in-kind resources for maternal and child health services.

In addition, the Florida Department of Health, in collaboration with Healthy Start coalitions and the Agency for Health Care Administration, developed a 1915(b)(1) Medicaid waiver that allows the state to receive Medicaid funding for Healthy Start services provided to Medicaid eligible pregnant women and infants. This waiver has resulted in over \$10 million new service dollars allocated for Healthy Start women and infants.

Healthy Start offers universal screening for all pregnant women and infants in Florida. This process is key to ensuring that early care is targeted to those families most at risk for adverse outcomes. Pregnant women or infants who score 4 or more on their respective risk screens are eligible to participate in Healthy Start. Health care providers can also make referrals to Healthy Start based on factors other than score, and women and families can refer themselves for program services.

The Healthy Start model is designed to deliver cost-effective prenatal and infant services. The principal components of the program are based on the concept that risk-appropriate health care and social support services should be provided to pregnant women and infants who are assessed as being at-risk for poor birth or health outcomes and who are unable to effectively access services.



Healthy Start incorporates three primary service delivery components: **1) the universal screening of pregnant women and infants to identify those at risk; 2) professional assessment of health, social-environmental risk, and individual resources to determine if services are needed to address risks; and 3) targeted, risk-appropriate care to improve outcomes.**

Healthy Start participants are assessed by program professionals, and services are provided based on level of risk and need. The participant's and family's needs, desires, concerns, priorities, and available resources determine the intensity and duration of Healthy Start care coordination. Pregnant women and infants who have complex needs and few resources receive intensive ongoing care coordination, frequent contacts, and other services based on need. Additional services may include: psychosocial, nutritional, and smoking cessation counseling; childbirth, breastfeeding, and parenting support and education; and home visiting

This annual report includes key information about Florida's Healthy Start and issues related to maternal and child health in Florida.



SECTION TWO

healthy start coalitions

Healthy Start coalitions are community-based nonprofit agencies charged with oversight of the maternal and child health system of care in their local communities.

The 31 Healthy Start coalitions (covering 65 of 67 Florida counties) are located throughout the state and are made up of over 3,600 community volunteer members. The coalitions conduct assessments of community assets and needs, identify gaps and barriers to effective service delivery, and develop a service delivery plan to address identified problem areas and issues. The coalitions also allocate available Healthy Start direct service dollars to local providers and monitor the Healthy Start system of care. In the event that a local community does not have a Healthy Start coalition, the responsibility for ensuring the system of care for the maternal and child health population is held by the local county health department.

In contract year 2000-2001, Healthy Start coalitions generated over \$2 million of in-kind services and leveraged more than \$8 million in additional revenue for maternal and

child health services. There are nearly 1,800 organizations represented in the membership of Healthy Start coalitions. The involvement of key partners in local coalition activities ensures that the diverse needs of pregnant women and infants are addressed. The diversity of coalition membership also ensures local support and commitment to the needs of the maternal and child health population. There were 31,695 volunteer hours reported by coalitions during this past contract year (2001–2002).



SECTION THREE

key issues for health outcomes



PRENATAL CARE Early access to continuous, quality prenatal care is an important step in ensuring pregnant women get the care they need so their babies will be born healthy. The Healthy Start program addresses prenatal care in a variety of ways.

Local community outreach activities increase public awareness of Healthy Start, educating both potential participants and providers about Healthy Start services. Each Healthy Start coalition is responsible for recruitment of public and private providers, education of the general community, and case finding activities that target underserved populations and geographic areas.

Early access to prenatal care is further supported through a simplified eligibility process for Medicaid. Healthy Start coalitions collaborate with local Department of Children and Families offices to ensure women with family incomes below 185 percent of the federal poverty level are promptly qualified for Medicaid benefits. Coalitions ensure that trained staff are available at convenient locations and times to assist women with the eligibility process.

Provider recruitment and retention is critical to the Healthy Start process. Coalitions develop and maintain a network of local service providers and encourage their involvement in coalition activities. Activities to help recruit and retain providers include outreach, training, technical assistance, and support. Provider recruitment helps ensure adequate care is available to meet the needs of all pregnant women and infants in a timely manner.

Healthy Start coalitions coordinate Florida's MomCare program as a part of ensuring access to services for all pregnant women. This program provides outreach to women who are eligible for Medicaid due to their pregnancy under the Sixth Omnibus Budget Reconciliation Act (SOBRA). The MomCare program provides prenatal care choice coun-

selling, assistance in accessing health care services, follow-up of missed prenatal care appointments, and coordination between prenatal care providers and support services.

RACIAL DISPARITY Racial disparity in health outcomes is an important national and state concern. In 2001, black infants in Florida were 2.4 times more likely to die in the first year of life than white infants. Despite increased efforts to reduce racial disparities, the black infant mortality rate has risen from a low of 12.3 per 1,000 live births in 1997 to a rate of 13.5 per 1,000 in 2001. Although the causes of racial disparity are yet to be clearly understood, potential contributing factors include: stress, discrimination, barriers to health care access, and poverty.

Strategies to reduce racial disparities are included in many of the local Healthy Start coalition service delivery plans. The Healthy Start screening process also addresses the heightened risk for black infants as well as the increased risk that black women have for experiencing preterm labor or giving birth to a low birth weight infant. By weighing these screening factors, Healthy Start can ensure program services are directed to the families at highest risk, increasing the likelihood of more positive birth outcomes.

SUDDEN INFANT DEATH SYNDROME (SIDS) The rate of SIDS deaths has steadily declined in Florida. However, despite recent reductions, SIDS continues to be a leading cause of infant mortality in the postneonatal period. In 2001, a total of 96 resident infant deaths were directly attributed to SIDS.

Healthy Start addresses SIDS through public awareness and participant education regarding preventive measures. County health department nurses providing prenatal care and Healthy Start care coordinators inform clients of the importance of placing infants on their backs to sleep, a proven method of reducing the risk of SIDS. Education is also provided on other risk reduction measures, such as lowered room temperatures, less bulky bedding, and the dangers of secondhand smoke. Many Healthy Start programs offer smoking cessation classes. These services are available for pregnant women and for family and household members in homes where an infant is present. Coalitions also address SIDS through their work with local Fetal and Infant Mortality Review (FIMR) projects. FIMR projects help identify gaps in SIDS patient and family education, professional education, and community awareness. The coalitions and FIMR projects are examining the possible risk of infant death potentially heightened by infants sleeping with adults. Bereavement support is provided through many of the coalitions and county health departments for families who suffer SIDS deaths.

LOW BIRTH WEIGHT AND PREMATURE INFANTS Prenatal care and care coordination play a major role in addressing the needs of women at risk of delivering premature and low birth weight infants. Activities include outreach to encourage women to access prenatal care early in their pregnancy; screening to identify risks that may contribute to a poor birth outcome; and provision of or referrals to other services such as smoking cessation, nutritional counseling, psychosocial counseling, and cessation of drug use during pregnancy.



Healthy Start has enhanced services to premature infants by increasing high-risk obstetrical care in remote areas through the Children's Medical Services' obstetrical satellite clinic network. These clinics allow medically high-risk pregnant women to obtain specialized prenatal care in their local communities. In 2001, the 86.3 percent of very low birth weight infants were delivered at high-risk facilities.

MEDICAID WAIVER In conjunction with the Florida Association of Healthy Start Coalitions and the Agency for Health Care Administration, the Department of Health submitted a Medicaid 1915(b)(1) waiver for Healthy Start services as an amendment of the MediPass Waiver in January 2001. The amendment was approved and formally signed on June 7, 2001. Through tremendous efforts by the Healthy Start coalitions and local Healthy Start care coordinators, the waiver was successfully implemented statewide in 2001.

The Healthy Start Medicaid Waiver allows the state to bill for services not previously covered by Medicaid. The Medicaid waiver has already provided approximately \$10 million in federal funds for Florida's at-risk pregnant women and children. With this additional funding, the Healthy Start program is able to serve pregnant women, infants, and children most at risk through increased care coordination, while also increasing the intensity and duration of care and services provided to match their risk and need. This waiver is anticipated to bring nearly \$15 million in services to pregnant women and infants in the coming year.

The Medicaid waiver will increase the percentage of Medicaid women screened for Healthy Start, decrease the unmet need for Healthy Start services for Medicaid-eligible pregnant women and children, increase the intensity of service provision as needed for risk-appropriate care, and minimize overhead and service duplication through locally driven systems of care targeting those most in need.

As part of the Healthy Start waiver, pregnant women in Florida are now able to apply for Medicaid using a simple, one-page mail-in application. Any health care provider (private physicians, clinics, hospitals, public health agencies) can obtain these applications for distribution to patients. Completed applications, which must include proof of pregnancy, are processed by the state using streamlined procedures. In most cases, eligible women receive their final determination in less than two weeks.

The waiver has also provided \$1 million in funding that has enabled Healthy Start coalitions to establish MomCare, a system to ensure that Medicaid-eligible pregnant women are screened for risk and have access to care and case management services during their pregnancy. Women who are eligible for Medicaid during pregnancy receive assistance in selecting a health care provider; in keeping medical appointments; and in obtaining WIC, Healthy Start, and other services through the choice counseling and care management portion of the waiver. Through the provision of these services to high-risk pregnant women, MomCare has become an integral part of the maternal and child health service delivery system working to ensure the best possible birth outcomes.



SECTION FOUR

selected indicators

Families Identified At Risk

Florida's universal screening of pregnant women and infants includes a series of questions that focus on medical, environmental, and psychosocial factors—such as age of the mother, previous pregnancy history, and home environment—that identify increased risk for poor outcomes. Points are assigned for risk factors, depending on the predictive value of the factors regarding the birth or health outcome.

During the 2001 contract year, there were 204,939 infants born to Florida residents. Florida's Healthy Start screened 105,040 women and 148,712 infants. Of the pregnant women who completed a Healthy Start prenatal risk screen, 36 percent scored at-risk for an adverse birth outcome. An additional 51,762 were determined to be at-risk for factors other than score. Of the infants who were screened, 11.7 percent scored at-risk for adverse health outcomes.

Families Receiving Healthy Start Services

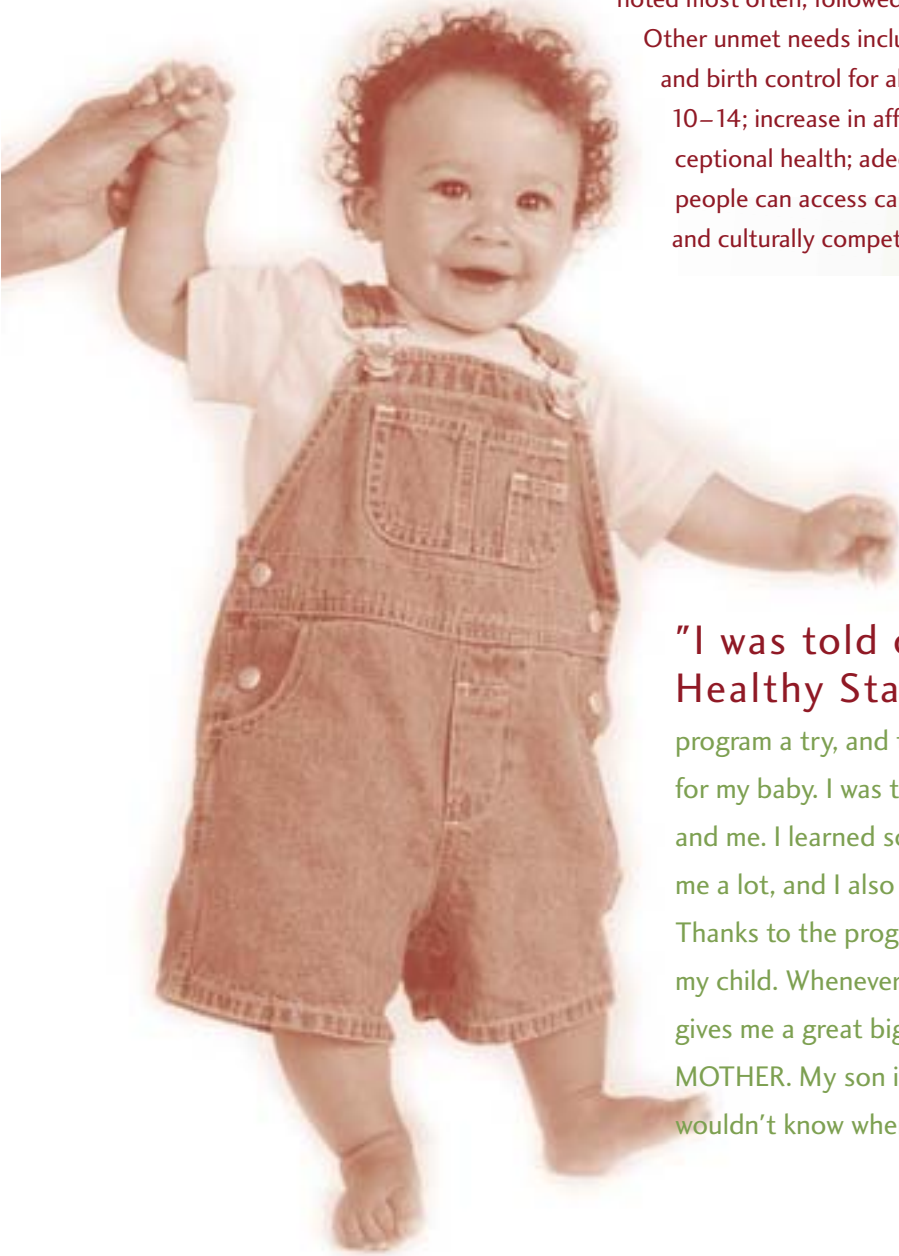
After a pregnant woman or the parents of an infant potentially at-risk have been contacted, those who are determined to be at risk will receive ongoing care coordination and other services appropriate to their level of risk and need.

From October 2000 through September 2001, the number of women receiving Healthy Start services was 86,292 while 67,972 infants received Healthy Start services. During this same period 1,003,796 prenatal and 727,905 infant services were provided to Healthy Start participants.

Demand for Healthy Start Services and Unmet Need

The need to focus service delivery on the highest risk population directs Healthy Start programs to increase the intensity and duration of services without increasing the total service population. This targeted service delivery is expected to result in better outcomes for high-risk pregnant women and infants. The Healthy Start screening process has identified thousands of Florida's most vulnerable pregnant women and infants. Health care professionals, social workers, and paraprofessionals have utilized information from the screening instruments to provide critical services to these at-risk families. Yet there remain families in need of Healthy Start services who are not served by the program.

Public health services such as Healthy Start require extensive outreach and case finding activities to successfully engage high-risk families in care. However, even the most comprehensive systems cannot always reach the most difficult to engage families. According to



service delivery data, Healthy Start providers were not able to contact over 2,300 at-risk families. The program requires at least three attempts to contact, one of which must be a face-to-face attempt prior to closing a case. Although Healthy Start provides for universal screening of all pregnant women and infants, screening rates still do not approach 100 percent. Healthy Start coalitions continue to work with local communities to increase Healthy Start screening rates in order to identify and serve those at highest risk.

Healthy Start coalitions were surveyed for this annual report and responded to an item regarding the identification of unmet needs in their catchment areas. A major need cited by the Healthy Start coalitions was access to care, particularly health care services for immigrants and undocumented aliens. Lack of access to prenatal care was noted most often, followed by access to mental health and dental services.

Other unmet needs included: access to information on family planning and birth control for all women; reduction of births to teens ages 10–14; increase in affordable housing; education regarding preconceptional health; adequate transportation systems so low-income people can access care; residential treatment for substance abuse; and culturally competent models of health care delivery.

“I was told of a program called Healthy Start. It sounded interesting, so I gave the program a try, and through the program I learned how to care for my baby. I was taught how to eat right for both my baby and me. I learned some breathing exercises that really helped me a lot, and I also learned the meaning of motherhood. Thanks to the program, I’m able to bond more and more with my child. Whenever I smile or make a noise at him he gives me a great big smile because he knows who I am—HIS MOTHER. My son is the most important person in my life and I wouldn’t know where I’d be without the help of Healthy Start.”



SECTION FIVE

evaluation

Evaluation Findings for Healthy Start Prenatal Services and Birth Outcomes

In the fall of 2001, program evaluation activities were undertaken to determine the association between the receipt of Healthy Start services and reduced risk of poor birth outcomes. The evaluation was based on an analysis of the risk of low birth weight (LBW), which is birth weight below 2500 grams (approximately 5.5 pounds). It was determined that for 16 of the 19 risk factors, the impact of the risk factor was reduced for women who received Healthy Start services.

Further analysis compared at-risk women who received Healthy Start services to those who did not, while adjusting for the differing demographic and risk factor characteristics between the two groups. Prenatal screening, service data, and birth outcome data were matched to create a file of records for 75,461 women who gave birth in 1999 and had matching identification security numbers.

In **Table 1**, the odds of LBW for high-risk women who were served by Healthy Start are compared to the odds of LBW for high-risk women not served by Healthy Start. Women were excluded if they entered care in the third trimester. Women who had multiple births were also excluded. Women were classified as receiving Healthy Start services if they received two or more services that involved a face-to-face contact.

The results in **Table 1** show that the odds of LBW are lower for women who receive Healthy Start services. The odds ratio for high-risk women is 0.917, indicating that the odds of LBW for Healthy Start women are 8.3 percent lower than the odds for non-Healthy Start women. The observed difference is statistically significant.

TABLE 1

Low Birth Weight Odds for High-Risk Women on Healthy Start Screening for 1999 Births Matched to Healthy Start Screenings Excluding Women Screened in the Third Trimester and Multiple Births

Healthy Start Screening SCORE	Healthy Start LBW ODDS	Non-Healthy Start LBW ODDS	Healthy Start to Non-Healthy Start ODDS RATIO	Lower 95% CONFIDENCE LIMIT	Upper 95% CONFIDENCE LIMIT
4	0.096	0.105	0.909	0.796	1.038
5	0.118	0.128	0.916	0.790	1.064
6	0.132	0.162	0.814	0.676	0.980
7	0.169	0.171	0.985	0.755	1.285
8	0.202	0.218	0.928	0.602	1.430
9+	0.162	0.260	0.624	0.323	1.205
Total	0.117	0.128	0.917	0.846	0.994

Table 2 shows results of a similar analysis using logistic regression. Screening risk factors are used to adjust for differences between the two groups. The adjusted odds ratios reflect the relative odds of LBW associated with each factor, independent of the association with the other factors in the table. The principal finding is the 0.909 adjusted odds ratio for the “Served by Healthy Start” variable. This adjusted odds ratio is similar to the odds ratio of 0.917 in Table 1 and is also statistically significant. The result is that after adjusting for all of the other risk factors, women who receive Healthy Start services have significantly lower odds of LBW.

It is important to note that because women were not randomly assigned to receive or not receive Healthy Start services, the research design precludes the ability to determine causality in the way an experimental treatment versus control study would. However, this evaluation provides evidence that Healthy Start reduces risk of low birth weight.

TABLE 2

Adjusted Low Birth Weight Odds Ratios for Women Positive on Healthy Start Screening For 1999 Births Matched to Healthy Start Screenings Excluding Women Screened in the Third Trimester and Multiple Births By Risk Factor

Healthy Start Prenatal Screening RISK FACTOR	Adjusted Odds RATIO	Lower 95% CONFIDENCE LIMIT	Upper 95% CONFIDENCE LIMIT
Race Black	1.957*	1.757	2.179
Unmarried	1.028	0.911	1.16
Age < 18	1.046*	0.934	1.171
Age > 39	1.616*	1.213	2.151
Education < 12th grade	1.150*	1.051	1.259
Pre-Pregnancy Weight < 110	1.896*	1.711	2.102
Began Prenatal Care in 2nd trimester	1.095*	1.007	1.19
Appointment Barriers	1.169*	1.022	1.337
Moved 3 times last year	0.945	0.837	1.066
Unsafe residence	1.088	0.922	1.283
Hunger problems	1.118	0.923	1.356
Tobacco use	1.402*	1.263	1.555
Drugs or alcohol use	0.944	0.844	1.056
Physical violence problems	1.033	0.894	1.194
High stress level	1.069	0.965	1.184
Unwanted pregnancy	0.940	0.843	1.049
Previous poor birth outcome	1.769*	1.614	1.94
Illness	1.382*	1.237	1.543
Served by Healthy Start	0.909**	0.837	0.987

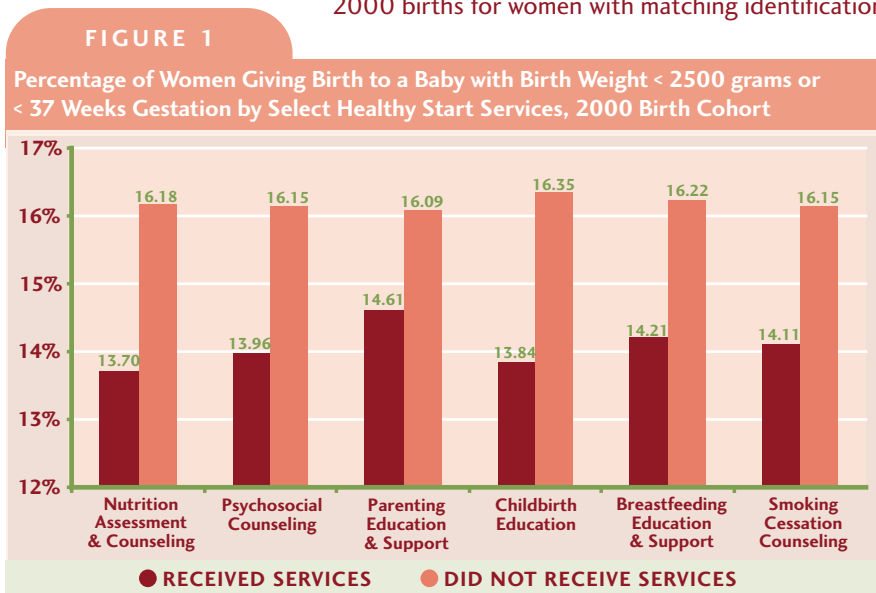
* Adjusted odds ratio significantly greater than 1.

** Adjusted odds ratio significantly lower than 1.

Healthy Start Prenatal Services to Pregnant Women

When a woman consents to participate in the Healthy Start program, health professionals contact her to assess her risk and offer risk-appropriate program services. An analysis of Healthy Start prenatal services was conducted for women who were determined to be high risk for adverse birth outcome of low birth weight or preterm birth for the 2000 birth cohort. Prenatal screens and prenatal Healthy Start services were matched to 51,094 year 2000 births for women with matching identification numbers. Healthy Start provides risk

appropriate services such as nutrition counseling, psychosocial counseling, parenting education, childbirth education, breastfeeding education, and smoking cessation. **Figure 1** shows that high-risk women who received these Healthy Start services were less likely to have an adverse birth outcome compared to high-risk women who did not receive program services. The observed differences were statistically significant.



Screening Risk Factor Prevalence

The Healthy Start prenatal and postnatal (infant) screens assist in identifying risk factors that may contribute to adverse pregnancy or birth outcomes. There are factors on the screen that are weighted and summed to create a risk score. Other factors are collected for analysis but are not currently used to compute the score.

Weighted prenatal screening risk factors include:

1. Mother's race is Black
2. Unmarried
3. Less than high school education or no GED
4. Second trimester entry into prenatal care
5. Tobacco use during pregnancy
6. Previous poor birth/pregnancy outcome
7. Drug/alcohol use during pregnancy
8. Pre-pregnancy weight <110
9. Pregnant women age <18 or >39
10. Would change pregnancy timing to not pregnant at all
11. Current illness requiring continuing care
12. Moved more than 3 times
13. Problems keeping appointments
14. Feel unsafe in home environment
15. Self or member of household goes to bed hungry.

Weighted postnatal (infant) risk factors include:

1. Mother's race nonwhite or unknown
2. Unmarried
3. Less than high school education and Mother age >18
4. Mother age <18
5. Late or no prenatal care: No, 9th month or unknown
6. Mother used >9 cigarettes/day during pregnancy
7. Birth weight <2000 grams (4 lbs 7 oz)
8. Alcohol use during pregnancy
9. Abnormal conditions of pregnancy
10. Congenital anomalies

Little 16-month-old Katie sees proof that Healthy Start works every time she gazes into her mother's eyes. Katie's mother wonders if she would even be here if it weren't for the wealth of support she was shown during the lowest time of her life. She was referred to Healthy Start and met her care coordinator. She eagerly sought information to help her have a healthy pregnancy and baby. Childbirth, breastfeeding, and baby care classes quickly filled her calendar. Intensive counseling provided through Healthy Start helped her gain insight. Looking back over the last two years, Katie's mom feels that Healthy Start has "helped me be who I am today." Little Katie must think so too, every time she reaches for her mother . . .and she's there.



success story

The prevalence of risk factors is useful for tracking patterns and indicates the extent of these risk factors among the Healthy Start population. Using the 2000 birth cohort matched to prenatal and postnatal screening data, the prevalence of each Healthy Start screening factor was examined and is displayed by mother's race in **Tables 3 and 4**.

Noteworthy findings of this analysis include:

- ❁ Unmarried status of the birth mother was the most prevalent risk factor on both the prenatal and postnatal screens for all races and within all mother race categories.
- ❁ Among black women, Less than High School Education or No GED and Entry Into Prenatal Care in 2nd Trimester are the next most prevalent prenatal risk factors.
- ❁ Among white women, tobacco use during pregnancy was reported to be prevalent during pregnancy and ranked second and third respectively on the prenatal and postnatal screening data.
- ❁ For women reporting their race as "Other" on the prenatal screen, the three most prevalent risk factors were identical to those for black women—Unmarried Status, Less than High School Education or No GED, and Entry Into Prenatal Care in 2nd Trimester. On the postnatal screen, No or Late Prenatal Care (no care, 9th month, or unknown prenatal care), was third in prevalence of reported risk factor for this group, and the most prevalent factors were the same as those reported for black and white women.

TABLE 3

Prenatal Screen Risk Factor Frequencies / Year 2000 Birth Cohort

Prenatal Risk Factors	All Races*(N=92,262)				Black Race (27,304)				White Race (48,203)				Other Race (16,736)			
	Rank	Count	% N		Rank	Count	% Black	% N	Rank	Count	% White	% N	Rank	Count	% Other	% N
Mother Black Race	3	27,304	29.59		—	27,304	100.00	29.59	—	—	0.00	0.00	—	—	0.00	0.00
Unmarried	1	51,744	56.08		1	20,793	76.15	22.54	1	22,698	47.09	24.60	1	8,244	49.26	8.94
Less than High School Education	2	30,238	32.77		2	10,029	36.73	10.87	3	13,371	27.74	14.49	2	6,832	40.82	7.40
2nd Trimester Entry into Prenatal Care	4	26,600	28.83		3	9,980	36.55	10.82	4	11,247	23.33	12.19	3	5,365	32.06	5.81
Tobacco Use During Pregnancy	5	20,033	21.71		7	2,624	9.61	2.84	2	15,731	32.63	17.05	6	1,675	10.01	1.82
Previous Poor Birth/ Pregnancy Outcome	6	14,462	15.67		4	4,383	16.05	4.75	6	7,788	16.16	8.44	4	2,287	13.67	2.48
Drug/Alcohol Use During Pregnancy	7	13,523	14.66		8	2,396	8.78	2.60	5	9,573	19.86	10.38	7	1,554	9.29	1.68
Pre-pregnancy Weight <110 lbs	8	8,791	9.53		10	1,638	6.00	1.78	7	4,908	10.18	5.32	5	2,242	13.40	2.43
Age<18	9	8,368	9.07		6	3,394	12.43	3.68	10	3,553	7.37	3.85	9	1,420	8.48	1.54
Pregnancy Timing: Would Change to Not Pregnant	10	8,015	8.69		5	4,179	15.31	4.53	11	2,682	5.56	2.91	11	1,154	6.90	1.25
Has Illness that Requires Continuing Care	11	7,522	8.15		9	2,301	8.43	2.49	8	4,146	8.60	4.49	12	1,074	6.42	1.16
Moved More than 3 Times	12	6,788	7.36		11	1,517	5.56	1.64	9	4,090	8.48	4.43	10	1,178	7.04	1.28
Problems Keeping Appointments	13	5,167	5.60		12	1,407	5.15	1.53	12	2,244	4.66	2.43	8	1,514	9.05	1.64
Feel Unsafe	14	2,741	2.97		13	1,132	4.15	1.23	13	1,043	2.16	1.13	13	566	3.38	0.61
Go to Bed Hungry (or member of household)	15	2,000	2.17		14	777	2.85	0.84	14	804	1.67	0.87	14	418	2.50	0.45
Age> 39	16	1,187	1.29		15	344	1.26	0.37	15	663	1.38	0.72	15	179	1.07	0.19

*Prenatal All Races includes 19 records with missing race.

TABLE 4

Postnatal (Infant) Screen Risk Factor Frequencies / 2000 Birth Cohort

Prenatal Risk Factors	All Races*(N=92,262)				Black Race (27,304)				White Race (48,203)				Other Race (16,736)			
	Rank	Count	% N	Rank	Count	% Black	% N	Rank	Count	% White	% N	Rank	Count	% Other	% N	
Mother Race Nonwhite or Unknown	2	34,607	28.68	—	30,936	100.00	25.24	—	0	0.00	0.00	—	3,612	100.00	2.99	
Unmarried	1	51,227	42.46	1	21,755	70.32	18.03	1	28,584	33.22	23.69	1	865	23.95	0.72	
Mother Education < High School and Mother > 18	3	20,396	16.90	2	5,847	18.90	4.85	2	13,932	16.19	11.55	2	593	16.42	0.49	
Mother Used > 9 cigarettes/day	4	7,543	6.25	7	650	2.10	0.54	3	6,814	7.92	5.65	6	71	1.979	0.06	
Mother Age < 18	5	6,543	5.42	3	2,855	9.23	2.37	4	3,603	4.19	2.99	5	81	2.24	0.07	
Birth weight <2000 grams (4 lbs 7 oz)	6	3,927	3.25	4	1,571	5.08	1.30	5	2,251	2.62	1.87	4	104	2.88	0.09	
No, 9th Month or Unknown Prenatal Care	7	2,911	2.41	5	1,358	4.39	1.13	6	1,421	1.65	1.18	3	117	3.24	0.10	
Abnormal Conditions of Newborn	8	2,219	1.84	6	777	2.51	0.64	7	1,386	1.61	1.15	7	55	1.52	0.05	
Congenital Anomalies	9	1,005	0.83	8	262	0.85	0.22	8	727	0.84	0.60	8	16	0.44	0.01	
Mother Used Alcohol	10	530	0.44	9	128	0.41	0.11	9	393	0.46	0.33	9	8	0.22	0.01	

*Postnatal All Races (N) includes 59 records with mother's race not reported

“I am a graduating senior at my high school. I am graduating in the top 20 percent of my class with a 3.3 GPA. I also have a 1-year-old daughter. I enjoy being in the Healthy Start program because it gives me someone to talk to who will also listen to me and try and lead me in the right direction. Also, it is a very motivating program. It helps me to set realistic goals and stick to them. It also motivated me to continue with my life, including my education. I would like to thank my Healthy Start worker personally, because she kept my eyes open to the real world and helped me to realize the benefits of continuing my education by always telling me that she believes in me and that she knows that I can do whatever I put my mind to. P.S. I have a full scholarship to college and plan on majoring in engineering!”

Evaluation of the Healthy Start Prenatal Screening Criteria

The Florida Healthy Start prenatal screen identified 36 percent of pregnant women screened as having an elevated risk for the adverse birth outcomes of birth weight less than 2000 grams or gestational age less than 34 weeks in the 2000 birth cohort. Approximately 50 percent of the low birth weight and preterm births to women screened occur to the 36 percent of women classified as high-risk.

The 15 weighted risk factors on the Healthy Start Prenatal Risk Screening Instrument were analyzed for associations with the adverse birth outcomes of low birth weight and preterm birth. **Figure 2** shows the rate ratios for the risk factors. Reported tobacco use, frequent moves and substance use are correlated with race and are more often reported by white women. This may result in an under representation of risks associated with these factors.

Figure 3 shows that higher scores on the Healthy Start Prenatal Screen are more

strongly associated with the adverse birth outcomes of low birth weight and preterm birth.

FIGURE 2

Unadjusted Rate Ratios for Risk Factors for Low Birth Weight (<2000 grams) or Preterm Birth (< 34 Week Gestation), 2000 Birth Cohort

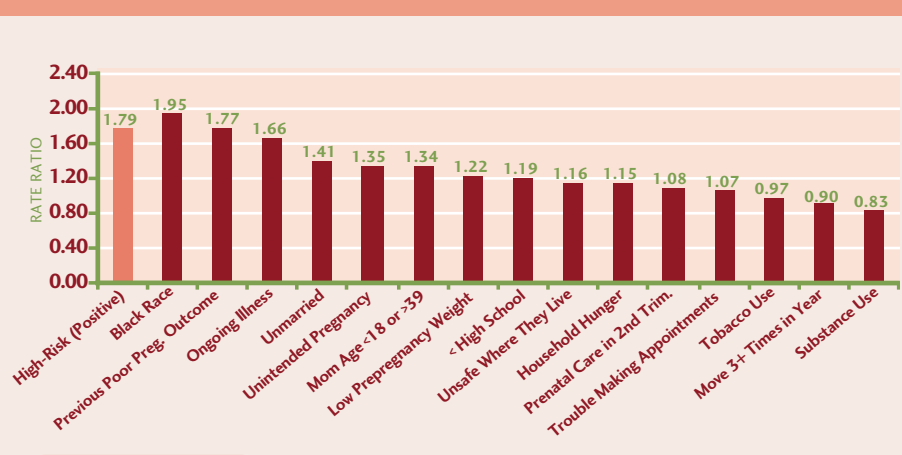
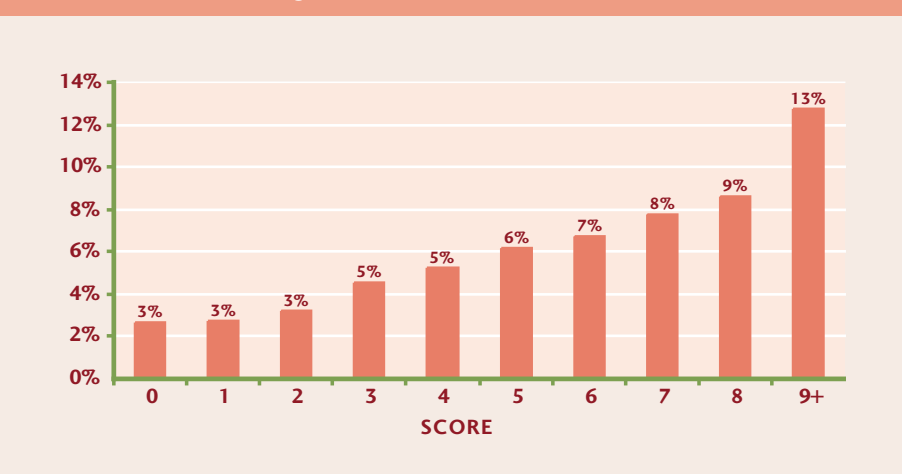


FIGURE 3

Percentage of Birth Weight < 2000 grams or Birth < 34 Weeks Gestation by Healthy Start Prenatal Risk Screening Score, 2000 Birth Cohort



Evaluation of the Healthy Start Infant Screening Criteria

The Healthy Start infant screen was developed in 1992 to identify infants who have an increased risk of postneonatal death (age 28 days to 1 year). A score of 4 or more indicates that an infant is at increased risk for postneonatal death. **Figure 4** shows that higher scores continue to be closely associated with higher postneonatal death rates.

The infant screening criteria have not been revised since the initial development in 1992. As a part of continuous quality improvement activities, evaluation staff performs analysis of the tool to ensure the validity of the screen. In 2002, this was done using 2000 birth and infant death data. With the results of this analysis, we now have performance data based on four years: 1989, 1993, 1998 and 2000.

The screening results have been remarkably consistent across the years examined. There has been a slight improvement in the performance of the screen in that the percent at risk has decreased from 13.3 percent in 1989 to 9.8 percent in 2000, while the sensitivity (ability to identify those who will experience adverse outcome as positive) has increased from 48.2 percent in 1989 to 50.5 percent in 2000. The screening continues to improve as a tool to identify infants who are at risk of postneonatal death.

FIGURE 4

Post Neonatal Death Rate by Healthy Start Infant Score (2000)

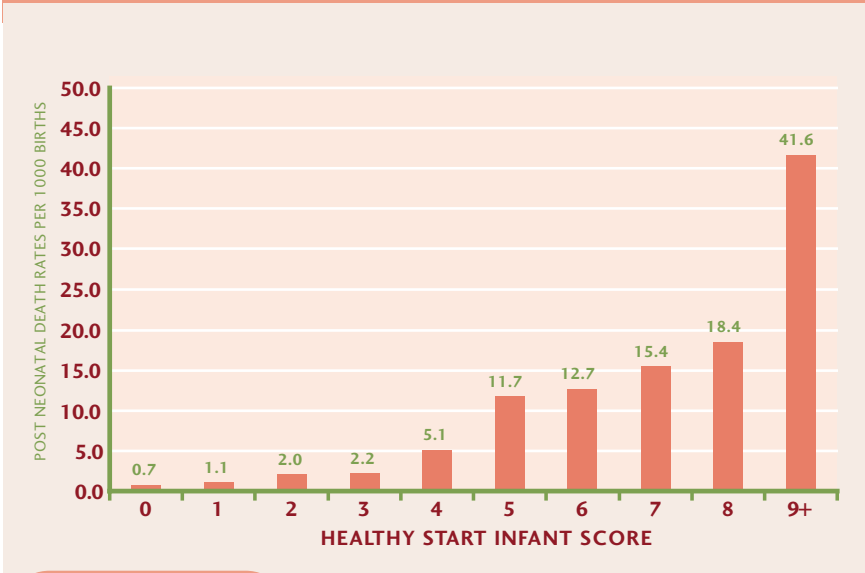
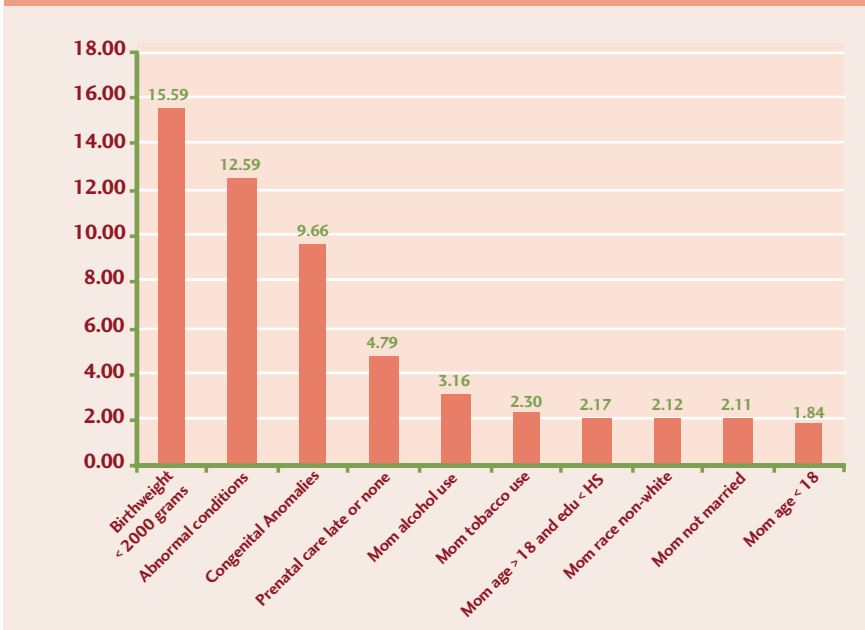


FIGURE 5

Postneonatal Death Rate Ratio by Healthy Start Infant Screening Factor, 2000 Data



The 10 original weighted risk factors on the Healthy Start infant screen (Figure 5) remain closely associated with postneonatal death. The postneonatal death rate for each of the factors was computed, and these rates were used to calculate the rate ratio for each factor. The results are in the graph below.

As with previous analyses, the rate ratios for birth weight < 2000 grams, congenital anomalies, and abnormal conditions are quite high at 15.59, 9.66 and 12.59 respectively. In practice, infants with any of these factors are classified as at-risk on the Healthy Start infant screen and are automatically referred for services.

In summary, the Healthy Start infant screen is performing better than when it was first implemented in 1992, and there is consistent evidence that all of the factors used in the screening are indicators of increased risk for postneonatal death. Risk factors with the lowest association, for example “Mom age < 18,” still represent nearly a twofold risk for postneonatal death.



SECTION SIX

summary

Florida's Healthy Start continues to play a key role in the ability to improve health outcomes for pregnant women and infants. As

future challenges threaten to compromise past gains in maternal and child health outcomes, a sound public health infrastructure is critical.

Healthy Start provides the necessary framework to ensure that all key partners are in place to continue working to ensure a Healthy Start for Florida's infants.

A toll-free "Family Health Line," 1-800-451-BABY, provides statewide information and referral to the public. For more information on services in your area, call this number or your local Healthy Start coalition.

In partnership with the Department of Health, the following Healthy Start coalitions provide local leadership and planning for a system of care to promote optimum health outcomes for pregnant women and infants.

- Bay, Franklin, Gulf Healthy Start Coalition, Inc.
- Broward Healthy Start Coalition, Inc.
- Capital Area Healthy Start Coalition, Inc.
- Central Healthy Start, Inc.
- Charlotte County Healthy Start Coalition, Inc.
- Chipola Healthy Start Coalition, Inc.
- Escambia County Healthy Start Coalition, Inc.
- Florida Keys Healthy Start Coalition, Inc.
- Healthy Start Coalition of Hardee/Highlands/Polk Counties, Inc.
- Healthy Start Coalition of Hillsborough County, Inc.
- Healthy Start Coalition of Jefferson/Madison/Taylor Counties, Inc.
- Healthy Start Coalition of Manatee County, Inc.
- Healthy Start Coalition of Pasco County, Inc.
- Healthy Start Coalition of Pinellas County, Inc.
- Healthy Start Coalition of Santa Rosa County, Inc.
- Healthy Start Coalition of Sarasota County, Inc.
- Healthy Start Coalition of Southwest Florida, Inc.
- Healthy Start Coalition of St. Lucie County, Inc.
- Healthy Start Community Coalition of Okaloosa and Walton Counties, Inc.
- Healthy Start of North Central Florida, Inc.
- Indian River County Healthy Start Coalition, Inc.
- Maternal Child Family Health Alliance of Palm Beach County, Inc.
- Martin County Healthy Start Coalition, Inc.
- Northeast Florida Healthy Start Coalition, Inc.
- Okeechobee County Family Health/Healthy Start Coalition, Inc.
- Orange County Healthy Start Coalition, Inc.
- Prenatal and Infant Health Care Coalition of Brevard County, Inc.
- Seminole County Healthy Start Coalition, Inc.
- The Healthy Start Coalition of Flagler and Volusia Counties, Inc.
- The Healthy Start Coalition of Miami-Dade, Inc.
- The Healthy Start Coalition of Osceola County, Inc.



SECTION SEVEN

*for more
information*

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