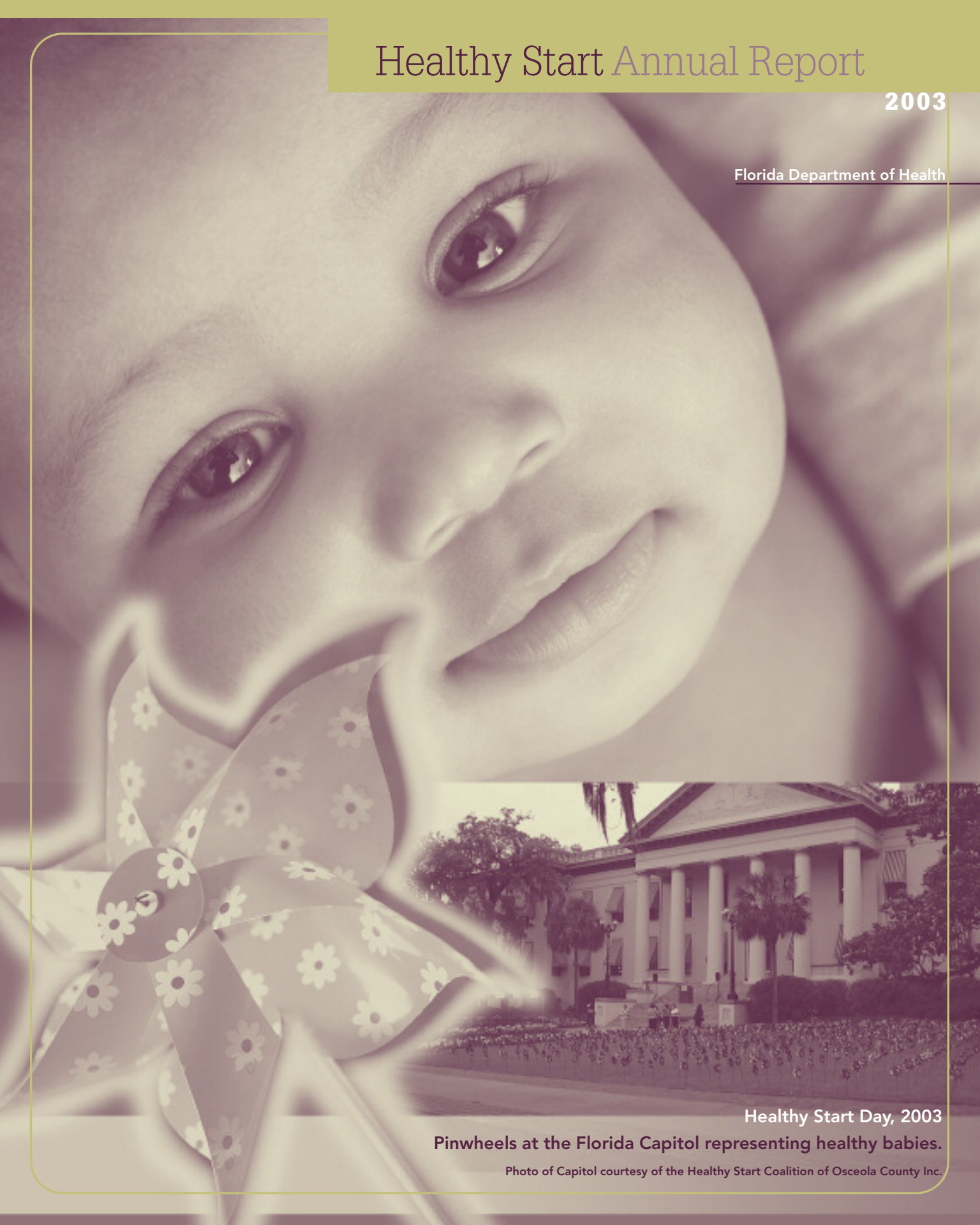


# Healthy Start Annual Report

2003

Florida Department of Health



Healthy Start Day, 2003

Pinwheels at the Florida Capitol representing healthy babies.

Photo of Capitol courtesy of the Healthy Start Coalition of Osceola County Inc.



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## Dear Reader:

Florida's Healthy Start program plays a key role in the lives of our most precious resource—our future generation! The goal of Healthy Start is to reduce infant mortality, reduce the number of low birth weight babies, and improve their health and developmental outcomes.

Through Healthy Start, families receive information about risks that can result in poor birth outcomes. Fortunately, Healthy Start services are available in every Florida county for high-risk pregnant women, infants, and their families.

I'm especially proud of the effective partnerships that have developed among our county health departments, our local Healthy Start coalitions, and the Florida Department of Health. Together, we are making a difference in the lives of Florida's pregnant women and their babies.

This year's annual report provides a great deal of helpful information about Healthy Start as well as a glimpse into the lives of families who have participated in this important public health program. There is no doubt that Healthy Start has made a difference to these families.

I hope you will enjoy learning about the crucial part that Healthy Start plays in your local community, and that you will be inspired to join us in our ongoing challenge to assure a healthy start for every child!

Sincerely,

JOHN O. AGWUNOBI, M.D., M.B.A.  
SECRETARY, DEPARTMENT OF HEALTH



# Executive Summary

The goal of Healthy Start is to reduce infant mortality, reduce the number of low birth weight babies, and improve health and developmental outcomes.

## Why Healthy Start?

Florida's Healthy Start program is charged with safeguarding the health and well-being of some of Florida's most vulnerable citizens: its pregnant women and their infants. It is a unique, statewide program designed specifically to:

- IDENTIFY, THROUGH A SCREENING PROCESS, THOSE WHO ARE AT HIGH RISK,
- PROVIDE PROFESSIONAL ASSESSMENT OF THEIR NEEDS AND DECIDE WHAT RESOURCES ARE AVAILABLE TO MEET THOSE NEEDS, AND
- PROVIDE TIMELY AND IMPORTANT LINKAGES, REFERRALS, OR SERVICES TO REDUCE THE RISK OF HAVING A POOR BIRTH OUTCOME AND POOR INFANT DEVELOPMENT.

Pregnancy and childbirth can be a stressful time for families with new feelings, experiences, and responsibilities. Healthy Start is here to help a family navigate this new experience, through referral and/or linkages to services, education, support, and follow-up. This program links women and infants to medical care and provides wrap-around services to help assure healthy mothers, healthy babies, and healthy families.

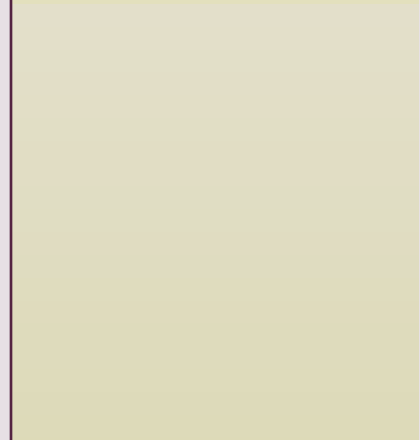
## Healthy Start Coalitions Reflect Communities at Work!

Healthy Start services are provided in each of Florida's 67 counties. Healthy Start coalitions are typically made up of volunteers representing all facets of their local communities. The coalition members know their community's unique strengths and needs and work together to assure that key services are in place for pregnant women, infants, and their families.

Between July 1, 2002 and June 30, 2003, (fiscal year 2002–03), Healthy Start coalitions reported leveraging \$17.8 million in additional funds for the maternal and child health system, another \$3.1 million for in-kind services, and over 27,000 hours logged from local volunteers!

## How are we doing?

Since the Healthy Start program began in 1992, Florida has made great strides in reducing infant deaths. Florida's infant mortality (a baby who dies before his or her first birthday) rate was 8.8 per 1,000 live births in 1992, and the rate dropped to 7.5 by 2002—a 15 percent reduction over 10 years. However, Healthy Start is never satisfied with its accomplishments; coalitions work continually to maintain the progress they have made while responding to local needs and problems that have an effect on birth outcomes. We all benefit when babies are born healthy into strong, nurturing families.



In Florida, babies are still being born too soon and too small. The rate for babies being born with a low birth weight (less than 2500 grams, or less than approximately five and a half pounds) has increased steadily during the past decade, from 7.5 per 1,000 live births in 1993 to 8.4 in 2002. This trend mirrors national rates for low birth weight. Healthy Start's prenatal program works to address both low birth weight and prematurity (less than 34 weeks gestation).

### **How are we addressing the ongoing challenge to reduce infant mortality?**



The Florida Department of Health directs special attention to areas throughout Florida where infant death rates are increasing. In 2003, Florida's Healthy Start coalitions joined together to receive March of Dimes funding so that Florida's seven most populous counties—Dade, Broward, Orange, Pinellas, Hillsborough, Palm Beach, and Duval—could meet regularly and exchange critical data and other information. The select coalition and county health department representatives were charged with examining infant and fetal deaths using guidelines developed by the World Health Organization (WHO).

In February 2003, the March of Dimes launched a special campaign focusing on prematurity by holding the Florida Prematurity Summit in Tampa. The two-day conference was attended by approximately 150 doctors, nurses, and other health care providers; policy makers; researchers; and prominent leaders in the field of maternal and child health. The 28-member advisory committee for the campaign includes four representatives from the Florida Department of Health, including one member who also serves on the editorial committee responsible for producing the Proceedings of the Summit. This has enabled the department to make a substantial and continuing contribution to Florida's role in this nationwide March of Dimes Campaign.

In addition, the Florida Department of Health analyzes, in great detail, trends in birth outcomes at both the state and local levels. A team of health professionals, including local Healthy Start coalition leaders, examines the factors influencing the health of Florida's infants. Working together with local and national partners, such as the March of Dimes, the team looks for causes and patterns in poor birth outcomes and infant deaths. Their efforts play an important part in determining how Healthy Start can make a difference for families at risk of having poor birth outcomes.



There are several projects in Florida that specifically address racial and ethnic differences (disparities) in health outcomes. The department's Racial and Ethnic Disparity: Closing the Gap initiative provides funding for demonstration projects in local communities to target services to special populations. There are also five federal Healthy Start Projects in Florida. Federally-funded Healthy Start projects provide services and programs designed to reduce maternal and infant illness (morbidity) and enhance local systems of care. Projects are located in areas that traditionally experience a high rate of negative perinatal (around birth) outcomes with particularly high-risk populations.

A major priority of the projects is reducing racial disparities in maternal and infant outcomes. Special projects focus on reducing the disparities between White and Black infant mortality and reducing disparities in low birth weight, preterm delivery, and size for gestational age. Racial disparities are also addressed by increasing provider knowledge of and sensitivity to cultural beliefs and practices. The projects work to increase access to health services and to promote healthy behaviors among the target population. They give infants a better opportunity for health by promoting good health for the mother before and between pregnancies. They help ensure women and infants receive the services they need through enhanced health and social service care coordination. Additional support is provided through special programs focusing on maternal depression, including services such as mental health assessment, treatment, and referral.

Following is a list of the federal Healthy Start Projects:

- THE MAGNOLIA PROJECT (JACKSONVILLE)
- MATERNAL CHILD FAMILY HEALTH ALLIANCE OF PALM BEACH COUNTY, INC.
- GADSDEN FEDERAL HEALTHY START
- ST. PETERSBURG/PINELLAS HEALTHY START FEDERAL PROJECT
- CENTRAL HILLSBOROUGH HEALTHY START PROJECT

### **What is the Healthy Start Medicaid Waiver?**

In 2001, a Medicaid 1915(b)(1) waiver began which brought new Medicaid funding to Florida for Healthy Start. Through the Healthy Start Medicaid waiver, coalitions are able to:

- INCREASE THE INTENSITY AND DURATION OF HEALTHY START SERVICES FOR MEDICAID-ELIGIBLE WOMEN AND INFANTS, AND
- PROMOTE ACCESS TO PRENATAL CARE FOR ALL MEDICAID ELIGIBLE WOMEN THROUGH THE MOMCARE PROGRAM, A NEW ARM OF HEALTHY START FOCUSING ON ASSISTING MEDICAID-ELIGIBLE PREGNANT WOMEN IN GETTING THE CARE THEY NEED.

During fiscal year 2002–03, the Healthy Start services portion of the Medicaid waiver brought Florida \$10,088,549 in federal funds for at-risk pregnant women and children. The program also earned \$3,830,272 in federal funding for the MomCare program during the same time period. The Medicaid waiver has been a necessary boost for the Healthy Start coalitions around the state to respond to the growing health needs of Florida’s mothers and babies.

### **How many families receive Healthy Starts services?**

From October 2001 through September 2002, the number of women participating in Healthy Start was 87,655 while 65,163 infants participated in the program. During this same period, 1,207,510 prenatal and 796,372 infant services were provided to these Healthy Start participants.



## **How many families are served by MomCare?**

In the fiscal year 2002, 107,905 women were identified and referred to MomCare by Medicaid's fiscal agent. MomCare staff successfully contacted 81,462 women during the same time period, providing a link between the women's needs and the care they can receive in their community.

## **Where do we go from here?**

In the coming year, the Florida Department of Health will continue its work with local communities and Healthy Start coalitions in finding successful strategies to give every child a healthy start in life. Together, state and local communities will continue to move forward by:

- IMPROVING THE ACCESS TO CARE FOR PREGNANT WOMEN AND INFANTS,
- ADDRESSING THE RACIAL AND ETHNIC DISPARITIES THAT EXIST IN HEALTH OUTCOMES,
- INCREASING THE NUMBER OF WOMEN AND NEWBORNS SCREENED FOR HEALTHY START RISK FACTORS,
- EVALUATING HEALTHY START SERVICES AND OUTCOMES, AND
- DEVELOPING POLICIES THAT MAKE SURE WOMEN BEGIN THEIR PREGNANCIES AS HEALTHY AS POSSIBLE.

## **What can you do to help?**

Every Floridian is encouraged to become a part of this vital and important effort. Contact your local Healthy Start coalition or county health department (listed at the end of this report) to find out how you can help in your local community. Become a member of your local Healthy Start coalition. Finally, remind your friends, families, and colleagues that Healthy Start risk screening is important and necessary for every pregnant woman and infant: a healthy start lasts a lifetime!

Do not hesitate to call the toll-free Family Health line at 1-800-451-BABY (1-800-451-2229) for information on Healthy Start services available in your area.



# Legislative requirements of the annual report—at a glance:

The following items are addressed in detail in the annual report, and are provided here for reference for the period October 1, 2001 through September 30, 2002:

**1. Families at Risk** The Healthy Start screening process identified 85,203 pregnant women and infants that were at-risk for poor outcomes.

**2. Families Receiving Services** Healthy Start served 87,655 pregnant women with 1,207,510 services and 65,163 infants with 796,372 services. (This includes families who were identified prior to the contract year and through professional assessment as well as the screening process.)

**3. Demand for Services** The demand for Healthy Start services is evident in the data points reported above. There is a continued need for increased intensity and duration of services to meet identified needs while at the same time providing risk-appropriate care to program participants.

**4. Unmet Need** There were 7,144 at-risk families that Healthy Start providers were unable to contact. During the same time, program data suggests that, of the families not screened, an additional 25,568 would have been identified at-risk had they received screening.



The goal of Healthy Start is to reduce infant mortality, reduce the number of low birth weight babies, and improve health and developmental outcomes.

## Introduction

Florida's Healthy Start is a unique, statewide program designed to:

- IDENTIFY, THROUGH A SCREENING PROCESS, PREGNANT WOMEN AND INFANTS WHO ARE AT HIGH RISK,
- PROVIDE PROFESSIONAL ASSESSMENT OF THEIR NEEDS AND DECIDE WHAT RESOURCES ARE AVAILABLE TO MEET THOSE NEEDS, AND
- PROVIDE TIMELY AND IMPORTANT LINKAGES, REFERRALS, OR SERVICES TO REDUCE THE RISK OF HAVING A POOR BIRTH OUTCOME AND POOR INFANT DEVELOPMENT.

Healthy Start focuses on the reduction of infant mortality, because this indicator is a globally-accepted measure of the overall health of a community. Low birth weight and prematurity are direct contributing factors to infant mortality, and both are influenced by factors such as access to prenatal care and prenatal smoking.

### How are we doing?

Florida's Healthy Start has provided key public health services to families since 1992. You will find testimonials throughout this report that underscore how important these services are to families who need them. We all benefit when babies are born healthy into strong families. That's what a Healthy Start is all about!

Since Healthy Start began, Florida has made great strides in reducing infant mortality. At that time, the rate of infants dying before their first birthday was 8.8 per 1,000 live births. The rate dropped to 7.5 by 2002, representing a 15 percent reduction over 10 years. The rate reached an all time low of 7.0 in 2000, but has been edging upward since that time. While advances in medical knowledge, practice, and technology during this decade have played a key role in decreasing infant mortality, a strong public health system is vital to assuring that families get the services they need. Healthy Start provides this linkage for the maternal and child health population. Healthy Start coalitions work continually to maintain the progress they have made while responding to local needs and problems that have an effect on birth outcome.

In Florida, babies are still being born too soon and too small. The rate for babies being born with low birth weight (less than 2,500 grams, or less than approximately five and a half pounds) has increased steadily during the past decade, from 7.5 per 100 live births in 1993 to 8.4 in 2002. This trend mirrors national rates for low birth weight. Healthy Start's prenatal program works to address both low birth weight and prematurity.



## **How are we addressing the ongoing challenge to reduce infant mortality?**

The Department of Health provides extensive analyses at the state and local levels, examining the causes and the distribution of poor birth outcomes and infant deaths throughout Florida. Reviews consider such factors as:

- **BABY'S BIRTH WEIGHT,**
- **LOCATION OF MOTHER'S RESIDENCE FOR GEOGRAPHIC MAPPING,**
- **MOTHER'S AGE,**
- **USE OF "FERTILITY DRUGS" OR OTHER ASSISTED REPRODUCTIVE TECHNOLOGY, AND**
- **INCREASES IN THE OCCURRENCE OF MULTIPLE BIRTHS.**

Through special assistance from the Centers for Disease Control and Prevention (CDC), Florida was assigned a medical epidemiologist for its team to work with maternal and child health programs. Working together with local and national partners, such as the March of Dimes, the team helps to determine how Healthy Start can make a difference for families at risk of having poor birth outcomes.

During 2003, the Florida Department of Health directed special attention to areas throughout Florida where infant mortality rates were increasing. One such area requested assistance in the form of a special mortality review. The maternal and child health team, including epidemiologists, worked with the Healthy Start coalition and the local county health department to evaluate an apparent spike in infant mortality during the first half of 2002. The "field" investigation that resulted was an innovative approach to assessing infant mortality in this targeted community. The investigation reviewed all 2002 infant and fetal deaths in the county and included medical record reviews as well as analyses of vital statistics data. The study has been helpful to the county and to the state in developing processes for:

- **IDENTIFYING GEOGRAPHIC LOCATIONS TO BE TARGETED FOR PREVENTION EFFORTS,**
- **ASSURING THE ACCURATE REPORTING OF BIRTH DEFECTS, AND**
- **DEVELOPING PUBLIC HEALTH INFORMATION FOR OLDER MOTHERS ABOUT THE INCREASED RISKS IN CHILDBEARING WITH INCREASED MATERNAL AGE.**

In 2003, Florida's Healthy Start coalitions led a cooperative effort to receive March of Dimes funding so that Florida's seven most populous counties—Dade, Broward, Orange, Duval, Pinellas, Palm Beach, and Hillsborough—could meet regularly and exchange critical data and other information. Coalition representatives were charged with examining infant and fetal deaths using guidelines developed by World Health Organization (WHO). Past collaborative efforts have resulted in gaining valuable knowledge about the importance of women's health between pregnancies, especially for women at high risk for poor birth outcomes.

In February 2003, the March of Dimes launched a special campaign focusing on prematurity by holding the Florida Prematurity Summit in Tampa. The two-day



conference was attended by approximately 150 practitioners, policy makers, researchers, and prominent leaders in the field of maternal and child health. The 28-member advisory committee for the campaign includes four representatives from the Florida Department of Health, one of which also serves on the editorial committee responsible for producing the Proceedings of the Summit. This has enabled the department to make a substantial and continuing contribution to Florida's role in this nationwide March of Dimes Campaign.

Like other states, Florida faces the challenge of significant racial and ethnic disparities in health outcomes. The Department of Health's Racial and Ethnic Disparity: Closing the Gap initiative provides funding in local communities to target services to special populations. While these local projects focus on a variety of health issues, there are also Closing the Gap grants to address existing conditions known to have a negative effect on maternal and infant health outcomes. In so doing, Closing the Gap grant providers assist Healthy Start coalitions in reducing racial or ethnic disparities in birth outcomes that may exist in their communities.

There are five federal Healthy Start Projects in Florida. Federally-funded Healthy Start projects provide services and programs designed to reduce maternal and infant morbidity and enhance local systems of care. Projects are located in areas that traditionally experience a high rate of adverse perinatal outcomes with particularly high-risk populations.

A major priority of the projects is reducing racial disparities in perinatal outcomes. Special projects focus on reducing the disparities between White and Black infant mortality and reducing disparities in low birth weight, preterm delivery, and size for gestational age. Racial disparities are also addressed by enhancing provider knowledge of, and sensitivity to, cultural beliefs and practices. The projects work to increase access to health services and to promote healthy behaviors among the target population. They give infants a better opportunity for health by promoting preconceptional and interconceptional primary care. They help ensure women and infants receive the services they need through enhanced health and social service care coordination. Additional support is provided through special programs focusing on maternal depression, including service such as mental health assessment, intervention, and referral.

Other direct services provided include screening, assessment, care coordination, health education and counseling, home visits, nutritional services, and social and emotional support. Childbirth education, parenting education, and peer support counseling help families gain needed knowledge and support. The projects identify women in need through outreach, promotion, pregnancy testing, and nursing consultation. They also work to increase the accessibility and availability of well-woman health care and prenatal care.

Following is a list of the federal Healthy Start Projects:

- **THE MAGNOLIA PROJECT (JACKSONVILLE)**
- **MATERNAL CHILD FAMILY HEALTH ALLIANCE OF PALM BEACH COUNTY, INC.**



- GADSDEN FEDERAL HEALTHY START
- ST. PETERSBURG/PINELLAS HEALTHY START FEDERAL PROJECT
- CENTRAL HILLSBOROUGH HEALTHY START PROJECT

## **Healthy Start Coalitions—Communities at Work!**

Healthy Start services are provided in each of Florida's 67 counties. Local communities have created Healthy Start coalitions made up of volunteers from all segments of the community who work together to assure that key services are in place for pregnant women, infants, and their families. Healthy Start coalitions include members representing healthcare providers, hospitals, social service agencies, private businesses, and organizations such as March of Dimes and the United Way. The diverse make-up of these coalitions helps to create coordinated systems of care that can meet the unique needs of local communities. In the event there is not a coalition, the local county health department assumes the responsibilities for the Healthy Start program. Currently, there are 31 coalitions covering 65 Florida counties.

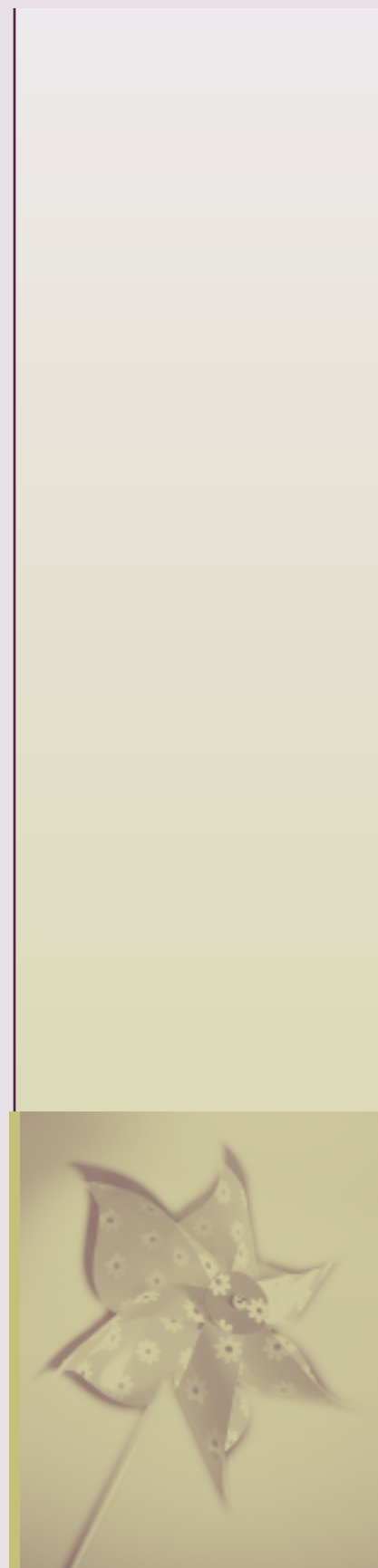
During the 2002–03 fiscal year, Healthy Start coalitions reported leveraging \$17.8 million in additional funds for the maternal and child health system, another \$3.1 million for in-kind services, and more than 27,000 hours logged from local volunteers!

Local coalitions work in partnership with local county health departments and the Florida Department of Health to develop programs and services that will work best in their community. Strategies that work in a large urban area may be very different than those that will be successful in a smaller rural county. Florida's rich cultural diversity creates unique challenges for providing health care services. Services must be delivered in a manner that is culturally appropriate and the delivery system must be able to accommodate many languages and dialects.

## **How does Healthy Start work?**

Healthy Start is about prevention. Whenever possible, Healthy Start provides services to address identified risks and other issues related to poor birth outcomes before they have a negative impact on families. First, healthcare providers screen pregnant women and infants through a questionnaire style form that is scored for risk indicators. For example, the Healthy Start prenatal screen identifies women who are at increased risk for delivering their baby early (prematurity) and women who are at increased risk for delivering a low birth weight baby (weighing less than 5.5 pounds). The Healthy Start infant screen identifies babies who are at an increased risk of infant mortality (a baby who dies before the first birthday).

Once a pregnant woman or infant is identified to be at increased risk for poor outcomes, Healthy Start contacts the family to explain risk factors. The family is given a professional assessment of needs and available resources. By providing information and services such as care coordination to high-risk families, Healthy





Start works to ensure the best possible birth and developmental outcomes. Healthy Start works with these families to increase their knowledge of healthy relationships and parenting.

Risk factors are outlined in the screening section of this report. Examples of risks for pregnant women include:

- **PRENATAL SMOKING,**
- **ALCOHOL USE DURING PREGNANCY,**
- **POOR NUTRITION, AND**
- **PRE-EXISTING MEDICAL CONDITIONS.**

For infants, the risk factors include:

- **LOW BIRTH WEIGHT,**
- **CONGENITAL ANOMALIES, COMMONLY KNOWN AS “BIRTH DEFECTS,”**
- **PRENATAL HEALTH BEHAVIORS OF THE MOTHER, AND**
- **DEMOGRAPHIC VARIABLES SUCH AS RACE.**

Black infants are twice as likely to experience infant mortality as other races.

Many risks can be modified with appropriate preventive care and services. For example, poor nutrition can be addressed with referral and linkage to the local Women, Infants, and Children (WIC) program. Central to the provision of Healthy Start services is the care coordination by health care and social work professionals. These services may also be provided by paraprofessionals supervised by professionals and working within formal protocols. This coordination prevents duplication of services, ensuring the best use of available resources and dollars while ensuring that quality services are delivered and gaps in care are met.

### **How do we measure progress?**

Progress toward reduction of infant mortality and low birth weight is monitored at both the state and local levels. The Department of Health provides an annual infant mortality health problem analysis (HPA) for each county. The HPA is a snapshot in time of the county’s maternal and child health status. This tool includes data trends for infant mortality, low birth weight, and their contributing factors. The analysis also provides programmatic service information and data for related indicators such as early entry into prenatal care rates for the area. The HPA, when used with the local coalition’s service delivery plan, allows a county to set community specific goals for service delivery and develop special projects as the data indicates.

### **The Healthy Start Medicaid Waiver**

In 2001, a Medicaid 1915(b)(1) waiver was implemented to include Healthy Start service provision as a part of the amended MediPass Waiver, which meant that new Medicaid funding would be available for Healthy Start. This waiver was the result of



a collaborative effort among the Florida Association of Healthy Start Coalitions, the Agency for Health Care Administration, and the Florida Department of Health. The Healthy Start Medicaid waiver has a dual purpose:

1. To provide more Healthy Start services for a longer period of time for Medicaid eligible women and infants, and
2. To make it easier for all Medicaid eligible women to access the prenatal care they need through the MomCare program. MomCare is a new arm of Healthy Start, focusing on assisting all Medicaid eligible pregnant women in getting the care they need.

During fiscal year 2002–03 (July through June), the Medicaid waiver Healthy Start Services component accounted for \$10,088,549 in federal funds for Florida’s at-risk pregnant women and children. With this additional funding, the Healthy Start program was able to provide more needed Healthy Start services to clients.

The waiver also provided \$3,830,272 in funding for MomCare during fiscal year 2002–03. Through MomCare, women who are eligible for Medicaid during pregnancy receive assistance in selecting a healthcare provider; keeping medical appointments; and obtaining WIC, Healthy Start, and other services through outreach and care management. MomCare has become an integral part of the maternal and child health service delivery system, working efficiently to link women to the services they need.

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

The Healthy Start Medicaid waiver efficiently increased services to those most in need by building upon the existing infrastructure.

## Identifying Families 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 the age of the mother, pregnancy history, and home environment—that identify increased risk for poor outcomes. Points are assigned for the risk factors that an infant or pregnant woman have, all of which are based on the estimated risk for poor birth or health outcomes.

## How many families are screened annually?

During the October 2001 to September 2002 contract year, there were 204,549 infants born to Florida residents. Florida’s Healthy Start screened 100,262 pregnant women and 147,390 infants. Of the pregnant women who completed a Healthy Start prenatal risk screen, 36 percent scored at-risk for an adverse birth outcome.



\* The previous year's report included persons who were self-referred. This report includes only persons referred to Healthy Start by a healthcare provider. This change was necessary due to changes in the screening form and data collection system.

An additional 31,215 were determined to be at-risk for factors other than score and were referred to Healthy Start by healthcare providers.\* Of the infants who were screened, 11.8 percent scored at-risk for adverse health outcomes. Calculations for families at-risk who were not screened are included in the following discussion related to "unmet need."

### **Why isn't everyone screened?**

Although the goal for Healthy Start screening is 100 percent, Healthy Start is a voluntary program. Some families may not know the benefits of Healthy Start and may decline the screening process. Local communities continue to work in partnership with the Florida Department of Health to assure that all pregnant women and families of newborns are offered the Healthy Start screening option. The goal is to encourage pregnant women and their families to say "yes" to completing the Healthy Start screen when offered and to help families understand the importance and benefits of early identification of risk factors.

### **How many families receive Healthy Start Services?**

High-risk pregnant woman and families of high-risk infants who agree to program participation are contacted by a Healthy Start provider. The provider explains the identified risk factors to the family and provides an assessment of the infant's or pregnant mother's service needs. Families receive ongoing care coordination and other services appropriate to their level of risk and need. Care coordination includes family education aimed at promoting healthy behaviors and healthy relationships. From October 2001 through September 2002, the number of women participating in Healthy Start reached 87,655 while the number of infants participating in Healthy Start was 65,163. During this same period, 1,207,510 prenatal and 796,372 infant services were provided to Healthy Start participants.

### **How many families are served by MomCare?**

In the fiscal year July 2002 through June 2003, 107,905 women were identified and referred to MomCare by Medicaid's fiscal agent. MomCare staff successfully contacted 81,462 women during the same time period. Participation in the WIC program was facilitated for 70,523 women through the MomCare program, and more than 11,000 women were referred to the Healthy Start program from MomCare.

### **Are there more families who need Healthy Start?**

The Healthy Start screening process has identified thousands of Florida's most vulnerable pregnant women and infants. The pregnant women and infants with the highest screening score have the greatest need for the services that Healthy Start coordinates. Therefore, Healthy Start programs direct their attention to increasing the intensity and duration of services to these clients without expanding the total service population. Targeted service delivery is expected to result in better



outcomes for high-risk pregnant women and infants. Healthcare professionals, social workers, and paraprofessionals use information from the screening tool to provide critical services to these at-risk families. Still, there remain families in need of Healthy Start services that are not served by the program.

In order to successfully engage high-risk families in care, public health services such as Healthy Start must devote time and energy to extensive outreach and case-finding activities. Even the most comprehensive systems cannot always reach the families who are most difficult to engage. According to service delivery data, Healthy Start providers were not able to contact more than 7,144 at-risk families. During the same time period, 57,159 infants and 104,287 pregnant women did not receive Healthy Start screening. Of these, it is estimated (based on population demographics) that 3,772 infants and 21,796 pregnant women would likely have screened at-risk, resulting in an additional 25,568 women and infants needing services. For this reason, the Healthy Start program requires that staffers attempt to contact families at least three times (one of which must be a face-to-face attempt) before closing a case.

### **What are the most frequently occurring risk factors for pregnant women and infants?**

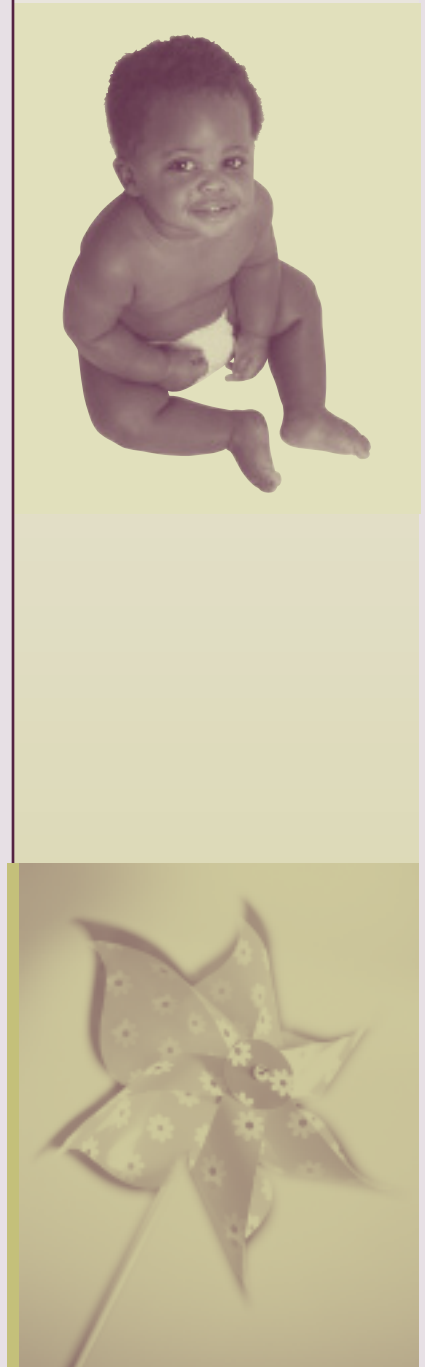
The Healthy Start prenatal and infant screens assist in identifying risk factors that may contribute to adverse birth outcomes. Factors on the screen are scored and added up to create a risk score. Additional factors are collected and analyzed each year for their value in predicting poor outcomes. Currently these factors are not used to compute the score. The following tables include the risk factors that are currently scored on the Healthy Start screens.

Scored prenatal screening risk factors:

1. MOTHER'S RACE IS BLACK
2. UNMARRIED
3. LESS THAN HIGH SCHOOL EDUCATION OR NO G.E.D.
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 OF LESS THAN 110
9. PREGNANT WOMEN AGE UNDER AGE 18 OR OLDER THAN 39
10. WOULD CHANGE PREGNANCY TIMING TO "NOT AT ALL"
11. CURRENT ILLNESS REQUIRING CONTINUING CARE
12. MOVED MORE THAN THREE TIMES
13. PROBLEMS KEEPING APPOINTMENTS
14. FEEL UNSAFE IN HOME ENVIRONMENT
15. SELF OR MEMBER OF HOUSEHOLD GOES TO BED HUNGRY

Scored infant risk factors:

1. MOTHER'S RACE IS NONWHITE OR UNKNOWN
2. MOTHER IS UNMARRIED



3. MOTHER HAS LESS THAN HIGH SCHOOL EDUCATION
4. MOTHER AGE IS UNDER AGE 18
5. LATE OR NO PRENATAL CARE: NONE, NINTH MONTH OR UNKNOWN
6. MOTHER USED MORE THAN 9 CIGARETTES/DAY DURING PREGNANCY
7. BIRTH WEIGHT OF LESS THAN 2,000 GRAMS (4 LBS 7 OZ)
8. MATERNAL ALCOHOL USE DURING PREGNANCY
9. ABNORMAL CONDITIONS OF PREGNANCY
10. CONGENITAL ANOMALIES

The prevalence of risk factors is useful for tracking patterns and indicates the extent of these risk factors among the Healthy Start population. Healthy Start staff used data from the 2001 birth outcomes and matched that data to prenatal and infant screening data. The prevalence of each scored Healthy Start screening factor was examined and is displayed by mother's race in Tables 1 and 2. Noteworthy findings of this analysis include:

- MOTHERS WHO WERE UNMARRIED REPRESENTED THE MOST PREVALENT RISK FACTOR ON BOTH THE PRENATAL AND INFANT SCREENS FOR ALL RACES.
- AMONG BLACK WOMEN, LESS THAN A HIGH SCHOOL EDUCATION OR NO G.E.D. AND ENTRY INTO PRENATAL CARE IN THE SECOND TRIMESTER WERE ALSO PREVALENT PRENATAL RISK FACTORS.
- AMONG WHITE WOMEN, TOBACCO USE DURING PREGNANCY AND LESS THAN A HIGH SCHOOL EDUCATION OR NO G.E.D. WERE PREVALENT RISK FACTORS, RANKING SECOND AND THIRD RESPECTIVELY ON THE PRENATAL SCREENING DATA.
- FOR WOMEN REPORTING THEIR RACE AS "OTHER" ON THE PRENATAL SCREEN, THE PREVALENT RISK FACTORS WERE IDENTICAL TO THOSE FOR BLACK WOMEN.

**Table 1** Healthy Start Prenatal Screening Risk Factor Prevalence, 2001 Birth Cohort

PRENATAL SCREEN RISK FACTORS	ALL RACES* (N=88,767)				BLACK RACE (25,989)				WHITE RACE (45,735)				OTHER RACE (17,022)			
	RANK	COUNT	% OF N		RANK	COUNT	% OF BLACK	% OF N	RANK	COUNT	% OF WHITE	% OF N	RANK	COUNT	% OF OTHER	% OF N
Mother-Black Race	3	25,989	29.3%		---	25,989	100.00%	29.28%	---	---	0.00%	0.00%	---	---	0.00%	0.00%
Unmarried	1	50,316	56.7%		1	19,823	76.27%	22.33%	1	21,957	48.01%	24.74%	1	8,528	50.10%	9.61%
Less than High School Education	2	28,974	32.6%		2	9,494	36.53%	10.70%	3	12,411	27.14%	13.98%	2	7,058	41.46%	7.95%
2nd Trimester Entry Into Prenatal Care	4	25,081	28.3%		3	9,193	35.37%	10.36%	4	10,320	22.56%	11.63%	3	5,561	32.67%	6.26%
Tobacco Use During Pregnancy	5	19,218	21.6%		7	2,668	10.27%	3.01%	2	14,861	32.49%	16.74%	6	1,686	9.90%	1.90%
Previous Poor Birth/Pregnancy Outcome	7	13,296	15.0%		8	2,406	9.26%	2.71%	5	9,248	20.22%	10.42%	7	1,640	9.63%	1.85%
Drug/Alcohol Use During Pregnancy	6	13,756	15.5%		4	4,163	16.02%	4.69%	6	7,282	15.92%	8.20%	4	2,311	13.58%	2.60%
Pre-pregnancy Weight <110 lbs	8	8,509	9.6%		10	1,632	6.28%	1.84%	7	4,600	10.06%	5.18%	5	2,274	13.36%	2.56%
Age<18	9	7,669	8.6%		5	3,763	14.48%	4.24%	11	2,798	6.12%	3.15%	11	1,108	6.51%	1.25%
Pregnancy Timing: Would Change to Not Pregnant	10	7,398	8.3%		6	3,100	11.93%	3.49%	10	3,006	6.57%	3.39%	9	1,292	7.59%	1.46%
Has Illness that Requires Continuing Care	11	7,139	8.0%		9	2,177	8.38%	2.45%	8	3,987	8.72%	4.49%	12	975	5.73%	1.10%
Moved More than 3 Times	12	6,571	7.4%		11	1,517	5.84%	1.71%	9	3,858	8.44%	4.35%	10	1,195	7.02%	1.35%
Problems Keeping Appointments	13	5,085	5.7%		12	1,371	5.28%	1.54%	12	2,135	4.67%	2.41%	8	1,578	9.27%	1.78%
Feel Unsafe	14	2,573	2.9%		13	1,039	4.00%	1.17%	13	984	2.15%	1.11%	13	549	3.23%	0.62%
Go to Bed Hungry (or member of household)	15	1,961	2.2%		14	652	2.51%	0.73%	14	891	1.95%	1.00%	14	418	2.46%	0.47%
Age> 39	16	1,251	1.4%		15	346	1.33%	0.39%	15	677	1.48%	0.76%	15	228	1.34%	0.26%

\*All Races" (N) includes 216 records with mother's race not reported.

Note: "Rank" in Tables 1 and 2 means the order of importance of that risk factor listed in the far left column on birth outcomes as it relates to the race description in the heading above it. Number 1 represents the most important and 16 represents the least important risk factor in the ranking.

**Table 2** Healthy Start Infant Screening Risk Factor Prevalence, 2001 Birth Cohort

PRENATAL SCREEN RISK FACTORS	ALL RACES* (N=145,293)			BLACK RACE (37,442)			WHITE RACE (102,785)				OTHER RACE (4,850)				
	Rank	Count	% of N	Rank	Count	% of Black	% of N	Rank	Count	% of White	% of N	Rank	Count	% of Other	% of N
Mother's Race Nonwhite or Unknown	2	53,815	37.04%	---	37,442	100.00%	25.77%	---	---	0.00%	0.00%	---	4,850	100.00%	3.34%
Unmarried	1	63,225	43.52%	1	26,184	69.93%	18.02%	1	35,721	34.75%	24.59%	1	1,248	25.73%	0.86%
Mother's Education < High School and Mother < 18	2	26,043	17.92%	2	7,262	19.40%	5.00%	2	17,885	17.40%	12.31%	2	784	16.16%	0.54%
Mother Used >9 cigarettes/day	3	7,969	5.48%	6	638	1.70%	0.44%	3	7,216	7.02%	4.97%	6	74	1.53%	0.05%
Mother Age < 18	4	7,207	4.96%	3	3,109	8.30%	2.14%	4	3,975	3.87%	2.74%	5	111	2.29%	0.08%
Birthweight <2000 grams (4 lbs 7 oz)	5	5,311	3.66%	4	2,176	5.81%	1.50%	5	3,000	2.92%	2.06%	4	126	2.60%	0.09%
No, 9th Month or Unknown Prenatal Care	6	3,641	2.51%	5	1,628	4.35%	1.12%	6	1,777	1.73%	1.22%	3	139	2.87%	0.10%
Abnormal Conditions of Newborn	7	2,069	1.42%	7	636	1.70%	0.44%	7	1,377	1.34%	0.95%	7	55	1.13%	0.04%
Congenital Anomalies	8	1,135	0.78%	8	321	0.86%	0.22%	8	753	0.73%	0.52%	8	31	0.64%	0.02%
Mother Used Alcohol	9	586	0.40%	9	128	0.34%	0.09%	9	449	0.44%	0.31%	---	4,850	100.00%	3.34%

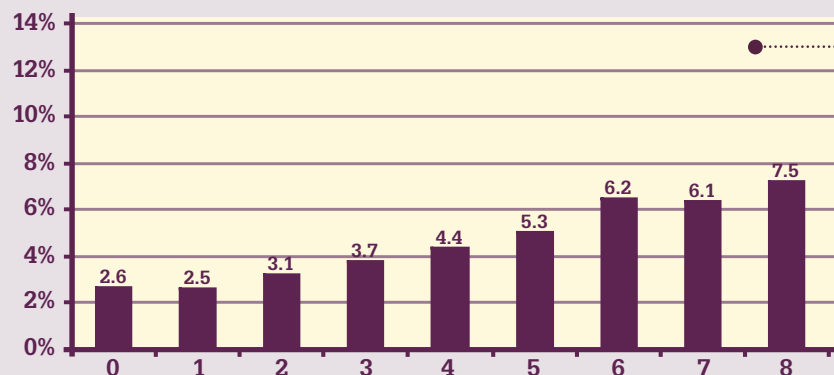
\*"All Races"(N) includes 216 records with mother's race not reported

## Why Are Healthy Start Screens So Important?

Each year, the Department of Health analyzes the performance of both the prenatal and infant screen to determine how well they are helping to identify high-risk pregnant women and infants. The screening process is so important to Florida's pregnant women and their infants, and useful to Healthy Start in making sure that a risk does not become a reality. The Healthy Start screens are a vital part of this intervention process.

## How Healthy Start Prenatal Screens Work

The Healthy Start prenatal screen was developed to identify women at risk for having a preterm, low birth weight baby. In determining the risk factors, low birth weight was defined as less than 2,000 grams. Preterm birth, or prematurity, was defined as a birth that occurs before 34 weeks of pregnancy (full term pregnancy is approximately 40 weeks). A score of four on the Healthy Start Prenatal screening identifies a woman at increased risk for having her baby born too soon or too small. Figure 1 shows that higher screening scores are associated with these adverse, or negative birth outcomes: the higher the prenatal screening score, the higher the risk is of having a preterm, low birth weight baby.



**Figure 1**

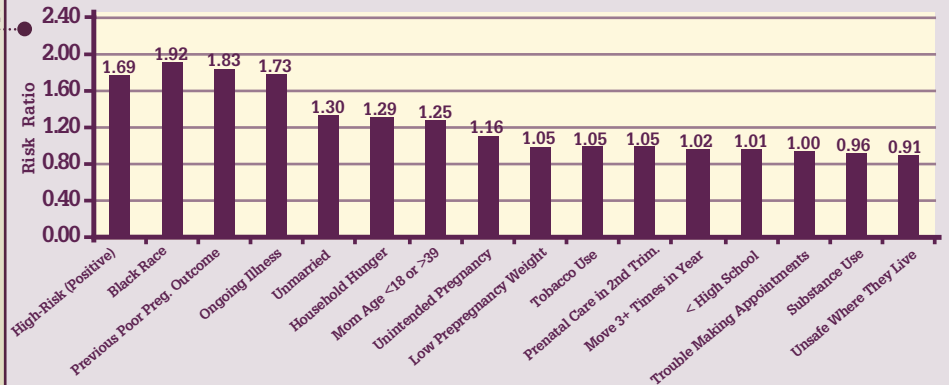
Percentage of Birth Weight < 2,000 grams or Birth < 34 Weeks Gestation by Healthy Start Prenatal Score, 2001 Birth Cohort

For Florida's infants born in 2001, a file was created to link Healthy Start screening data to birth data listing 87,002 infants whose mothers were screened by Healthy Start. Among these mothers, 35 percent were identified as having an increased risk for an adverse birth outcome. Women with a score of four or more are considered at-risk or "positive" on the prenatal screen. Based on the data for Florida's babies born in 2001, 47.7 percent of the women who had an adverse birth outcome were at-risk or "positive" on the screening. This percentage is called the "sensitivity" of the screening.

The 15 scored risk factors on the Healthy Start Prenatal Screen were analyzed for how they related to the adverse birth outcomes of low birth weight or preterm births. The adverse outcome rate was calculated for each factor and used to create the "risk ratio" for each factor. These ratios are shown in Figure 2. Risk ratios compare the rate for women with the risk factor to the rate for women without the risk factor. For example, the risk ratio for a previous, poor pregnancy outcome is 1.83, which means the adverse outcome rate for women with this risk factor is 1.83 times the rate for women without this factor.

**Figure 2**

Unadjusted Risk Ratios for Low Birth Weight (< 2000 grams) or Preterm Birth (< 34 weeks gestation), 2001 Data

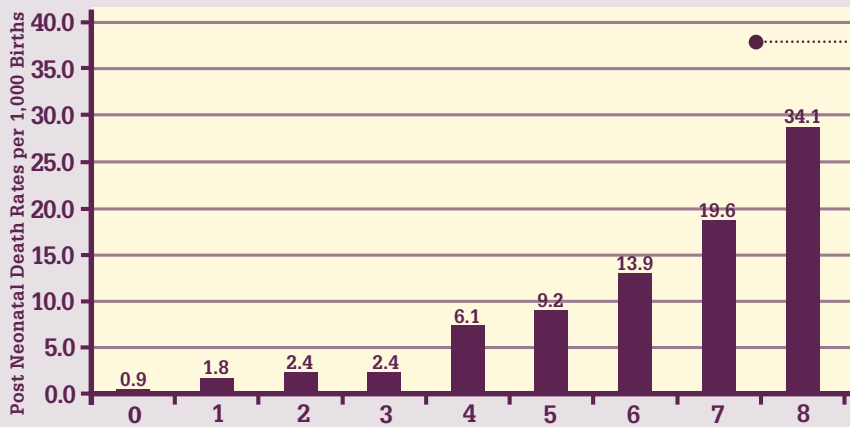


The first bar on Figure 2 shows the risk of an adverse birth outcome for women who score four or more on the screening is 1.69 times the risk for women who score three or less. Stated differently, the women who score four or more on the Healthy Start Prenatal Screen are 69 percent more likely to give birth to an infant weighing below 2,000 grams or to deliver before 24-weeks gestation. In summary, the Healthy Start Prenatal Screen continues to be a useful screening tool for identifying women at high risk for giving birth to low weight or preterm infants.

### How Healthy Start Infant Screens Work

The Healthy Start infant screen was developed in 1992 to identify infants who have an increased risk of dying at some time during the period between 28 days after their birth and their first birthday (postneonatal period). A score of four or more on the screen indicates that an infant is at increased risk for postneonatal death and referred to as "positive" on the screening. Figure 1 shows that higher infant screening scores are closely associated with higher postneonatal death rates.





**Figure 3**

Postneonatal Death Rate by Healthy Start Infant Score, 2001 Birth Cohort

In 2002, there were 205,580 resident births; 147,948 (72 percent) of those babies were screened with the Healthy Start Infant Screening tool. Among the screened infants, 12 percent were positive on the screening (scoring four or more) and identified as having an increased risk for postneonatal death.

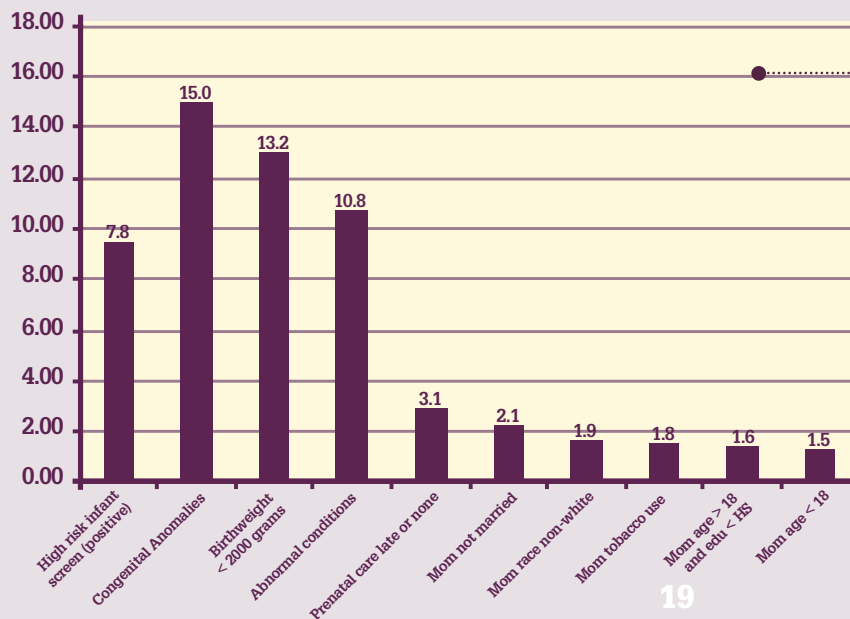
Based on data for 2001, infants who were positive on the screening had a post-neonatal death rate of 12.5 per 1,000 births, while infants who were not positive had a much lower rate of 1.6. The post neonatal death rate for positive infants is almost eight times that of infants who are not positive! Based on data for 2001, there were 413 post neonatal deaths among the infants who were screened; 208 (or 50.4 percent) of those deaths were among the 12 percent of infants who were screened positive. This is referred to as 50.4 percent sensitivity for the screening.

The postneonatal death rate for each of the factors was computed and then used to calculate the risk ratio for each factor as shown in Figure 4 below. Risk ratios compare the rate for infants with the risk factor, to the rate for infants without the risk factor. For example, the risk ratio for the low birth weight factor is 13.2, which means the postneonatal death rate for infants with this risk factor is 13.2 times the



**Figure 4**

Postneonatal Death Risk Ratio by Healthy Start Infant Screening Factor, 2001 Data





rate for infants without this factor. For one of the factors—alcohol use of the mother—the risk ratios could not be computed because the number of infants reported with this factor was low (581), and there were no postneonatal deaths recorded among these infants.

The risk ratios for birth weights less than 2,000 grams, congenital anomalies, and abnormal conditions are high at 13.2, 15.0, and 10.8 respectively (Figure 4). In practice, infants with any of these factors are classified as at-risk or positive on the Healthy Start infant screen and are automatically referred for services. The Healthy Start infant screen continues to serve as a reliable indicator.

### **Where do we go from here?**

The Florida Department of Health continues its partnerships with local communities through Healthy Start to find successful strategies that give every baby a healthy start in life. Since the Healthy Start program began in 1992, Florida has made great strides in reducing infant deaths—achieving a 15 percent reduction over 10 years. However, Healthy Start is never satisfied with its accomplishments; coalitions work continually to maintain the progress they have made while remaining responsive to local needs and problems that have an effect on birth outcome. This work in the coming year will include emphasis in the following areas:

**Assuring access to care for pregnant women and infants.** Many women in Florida still do not receive early, continuous, quality prenatal care. Prenatal care beginning in the first trimester of pregnancy helps to ensure the best possible outcomes. Florida’s goal is for 100 percent of its pregnant women to receive prenatal care during the first trimester of their pregnancy. A special prenatal care task force is working to achieve this goal.

**Addressing racial and ethnic disparities in health outcomes.** Healthy Start coalitions are working together with local projects, such as the federal Healthy Start projects and Closing the Gap grantees, to better understand and address the factors related to health disparities. Florida’s goal is to reduce the disparity by targeting racially- and ethnically-acceptable services to improve the outcomes of racial and ethnic groups that are experiencing poor outcomes.

**Healthy Start Prenatal and Infant Risk Screening.** The coming year will include increased marketing and public awareness activities related to Healthy Start risk screening. Those who need Healthy Start need to know that Healthy Start can make a difference to them. Florida’s goal is that every pregnant woman and infant will be offered and accept Healthy Start screening.

**Policy development to address women’s health from a lifespan approach to care.** Results from the WHO Perinatal Periods of Risk (PPOR) analysis indicate that there is much work to be done in the area of maternal health. Many women are entering their pregnancy with chronic illness or infections that can result in poor outcomes for themselves and their babies. Healthy Start will continue work to develop and implement strategies that can address the overall health of women before as well as



during their pregnancy. Getting at the root causes of poor birth outcomes and addressing those factors makes good sense. Healthy Start is dedicated to healthy mothers, healthy babies, and healthy families.

**Teamwork to find the “where” and “why” of poor birth outcomes.** Florida’s maternal and child health data and evaluation team is working to help local communities understand the data that will assist them in targeting their efforts to improve birth outcomes. Upon request, the Department of Health can provide special staff resources in the form of epidemiological and program evaluation assistance to help local communities with their efforts. Together, state and local sources will combine their knowledge and expertise in finding new ways to respond to ongoing challenges to healthy birth outcomes.

## **What can I do to help?**

- CALL YOUR LOCAL HEALTHY START COALITION OR COUNTY HEALTH DEPARTMENT (LISTED AT THE END OF THIS REPORT) TO FIND OUT HOW YOU CAN HELP IN YOUR LOCAL COMMUNITY.
- BECOME A MEMBER OF YOUR LOCAL HEALTHY START COALITION.
- REMIND YOUR FRIENDS, FAMILIES, AND COLLEAGUES THAT HEALTHY START RISK SCREENING IS IMPORTANT FOR EVERY PREGNANT WOMAN AND INFANT; A HEALTHY START LASTS A LIFETIME!
- IF YOU NEED INFORMATION ON SERVICES AVAILABLE IN YOUR AREA, CALL THE TOLL-FREE FAMILY HEALTH LINE AT 1-800-451-BABY (1-800-451-2229).



